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Key to Abbreviations in This Index

- Or.—Original Article.
C. R.—Case Report.
B. M.—Bedside Medicine.
M. T.—Medicine Today.
C. N.—Clinical Notes.
L. M. H.—Lure of Medical History.

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"A Key to the White House Conference.—The coming follow-up of the White House Conference which will be held in California in the near future is arousing considerable interest throughout the state. One of the publications of the White House Conference on Child Health and Protection—the key volume to the whole series, entitled 'White House Conference, 1930'—tells the whole story of the conference briefly and in readable fashion. This publication contains the significant leading speeches of the conference, including those of President Hoover and Dr. Ray Lyman Wilbur, chairman of the conference, together with abstracts of the articles of all conference committees and the committees' recommendations. As a large edition of the book was published, it has been possible to make an attractive edition with board covers, which is available at the nominal cost of fifty cents, including postage. This book can be obtained from the office of the White House Conference, Interior Building, Washington, D. C.

"This summary volume of the White House Conference serves a real purpose in guiding the well-intentioned efforts of civic and social groups. Workers in the field of child welfare are turning to this volume as an invaluable source-book and guide."

"Los Angeles Girl Wins State Health Essay Contest.—The Gorgas Memorial Institute of Preventive Medicine in Washington, D. C., has announced that Miss Helen L. Gunderson of the Los Angeles High School is the winner of the state prize offered by the institute for having submitted the best California essay on the subject of 'Mosquitoes—Their Danger as a Menace to Health and the Importance of Their Control.'

"This contest was participated in by high school students from every State and the District of Columbia, and fifteen thousand manuscripts were submitted. High school winners were chosen by faculty members and a Gorgas medal and a cash award were made to each winner. From the winning high school essays the state judges selected the best state paper. Mr. Vierling Kersey, State Superintendent of Public Instruction, Dr. Giles S. Porter, Director of the California Department of Public Health, and Frank C. Jordan, Secretary of State, were the judges who passed upon the California essays."

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA

By CHARLES B. PINKHAM, M. D.

Secretary-Treasurer

News Items, July 1932

When the legal calendar of the Board of Medical Examiners is called at Native Sons' Hall, San Francisco, at 10 a. m. Tuesday, July 12, 1932, the following licentiates are presumed to answer to complaints and citations to show cause why their licenses to practice in California should not be revoked:

Alexander, Charles B., M. D., conviction, violation Washington banking laws.
Alexander, Isaac, M. D., U. S. Veterans' Bureau fraud.
Armitstead, Reo B., M. D., U. S. Veterans' Bureau fraud.
Bonaventura, Filberto, M. D., federal narcotic conviction.
Buree, Samuel P., M. D., state narcotic conviction.
Citron, I. Jesse, M. D., alleged narcotic violation.
Collier, Francis, M. D., narcotic violation.
Cooper, Burpee, M. D., state narcotic conviction.
Dean, Charles J., M. D., federal conviction, bankruptcy laws.
Glaeser, William Edward, M. D., U. S. Veterans' Bureau fraud.
Kergan, J. T., M. D., narcotic violation.
MacLauchlan, Robert, M. D., violation probation.
McVey, Charles L., M. D., commitment.
Niemann, Theo Henry, M. D., narcotic violation.
Patee, Eliphalet, M. D., alleged illegal operation.
Pullman, Maurice (chiropractist), for final judgment.
Purcell, Edward, M. D., U. S. Veterans' Bureau fraud.
Rinaldo, Eugene, M. D., permanent writ of prohibition reported dissolved.
Staples, Aubrey, M. D., U. S. Veterans' Bureau fraud.

Stewart, Charles M., M. D., conviction for violation of Harrison Narcotic Act.
Tracy, Coyle, M. D., aiding and abetting.
Van Tassel, Fred H., M. D., U. S. Veterans' Bureau frauds.
Vasko, John R., M. D., U. S. Veterans' Bureau frauds.
Zachariah, Simon, M. D., narcotic violation.
Teran, Carlos Hidalgo y, M. D., narcotic violation.

"Dr. I. Jesse Citron, found not guilty yesterday by Federal Judge William P. James of charges that he illegally prescribed large quantities of narcotics for the late Alma Rubens, motion picture actress, faces new accusations. Shortly after Judge James had made known his findings after a four-day trial without a jury and having the case under submission for two weeks, announcement was made in San Francisco by Dr. Charles B. Pinkham, secretary of the State Board of Medical Examiners, that Doctor Citron will be brought before the board July 12 for trial by a state body on the same charges. Evidence introduced in federal court will be used against the physician in the new hearing. The Harrison Narcotic Act, under which Citron was indicted on thirty-five counts and tried before Judge James, is purely a revenue measure and has no bearing on prescribing by physicians of drugs for addicts, the judge said in his decision. 'Enactment of legislation to control the amount of drugs prescribed for patients by physicians is within the power of the states. The state also has the power to license and take away licenses,' Judge James said. 'Prescribing of drugs is purely a matter of good faith on the part of the physician.' . . . Narcotic agents testified that Doctor Citron prescribed 91 grains of one drug and 135 grains of another powerful narcotic for Miss Rubens in a thirty-five day period. Miss Rubens died after a brave fight against the horrors of narcotic drugs" (Los Angeles Examiner, June 2, 1932).

According to reports, Joseph Freed on May 6, 1932, in the Municipal Court of Los Angeles, pleaded guilty to a charge of violation of the Medical Practice Act and was sentenced to pay a fine of \$250 or serve 125 days in the city jail, sentence being suspended, and he was placed on probation for six months.

"Dr. C. B. Alexander, well known Alhambra physician, will fight extradition to Vancouver, Washington, where he was scheduled to appear yesterday for sentence on a fraud conviction in connection with the closing of the American Security Bank. . . . Dr. Alexander was president of the now defunct bank" (Los Angeles Examiner, May 19, 1932).

Reports relate that Harrison B. Hulse, M. D., former probationer on a narcotic charge, on June 4 pleaded guilty in the Police Court of Pasadena to a charge of driving an automobile while intoxicated, and was sentenced to pay a fine of \$100 or serve fifty days in jail. Fine paid.

"C. R. Jackson, self-styled doctor, sought here since September 30, 1930, on charges of issuing fictitious checks, is under arrest in Oakland, California, Detective Lieutenant P. J. Slattery announced today. Jackson, according to Slattery, passed bogus checks on several downtown merchants and at the State college, where he enrolled in a Spanish class. He represented himself as a doctor, Slattery said the merchants reported" (San Diego Tribune, May 11, 1932). (Previous entry, June 1931.)

"Accused of violating Section 17 of the State Medical Practice Act, L. Lee Krauss, alleged promoter of a birth control motion picture billed for Suisun tonight and Wednesday, was arrested yesterday on a warrant sworn to in Police Judge W. T. Kelly's court. . . . The film, 'No More Children,' was advertised in a local newspaper. . . . Krauss posted bail and left at once for Woodland to confer with his attorney. . . . (Vallejo Times-Herald, May 17, 1932). It is said that Krauss claims to be a graduate of the New York College of Chiropractic, 1914; also of the J. S. Riley College of Chiropractic, Washington, D. C., 1924; and is said to assert that the "Bureau of Moral and Hygiene Education, Inc.," of New York belongs to him.

CALIFORNIA AND WESTERN MEDICINE

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No. 1

URINARY INFECTIONS: THEIR CLASSIFICATION*

By FRANK HINMAN, M. D.
San Francisco

Discussion by Donald A. Charnock, M. D., Los Angeles; Charles P. Mathé, M. D., San Francisco; Lionel P. Layer, M. D., San Francisco.

NEPHRITIS and pyelonephritis are unsatisfactory representatives of two distinct groups of renal inflammation. The one refers to medical diseases of the kidney, the other to surgical, but the terms are not specific. Each covers many widely differing conditions and each group presents great difficulty in classification of these various diseases into recognizable and well-defined entities. Everyone should be familiar with the difficulties involved.

Fundamental differences of cause, mode and source of infection and of the clinical course and findings in relation to pathological changes establish a basis of division and subdivision, but in neither group can an etiological, anatomical, pathological or clinical basis of classification exclusively be followed to a satisfactory conclusion. But medical and surgical diseases are too complex and in themselves too closely interrelated to permit classification except on general lines. Transitional stages from one type to another are frequent.

The division into medical and surgical is itself misleading and nosologically incorrect. Some of the medical diseases often require surgery. In many surgical diseases operation is never indicated. The surgical group may be defined as including all renal lesions due to direct bacterial invasion, the medical group, degenerative inflammatory and vascular types of change secondary to toxins of the blood stream, whether chemical, bacterial, or other noninfectious cause. The origin of an infectious nephritis may be the same as an acute glomerulonephritis. Why the streptococcus, say of scarlet fever, at one time invades renal tissue, at another injures it indirectly through toxins (or antitoxins) is not known. Pyogenic infections may produce metastatic lesions of various types in the kidney or set free toxins that give rise to various forms of Bright's disease. An infectious fever may give rise to a specific focal infectious nephritis, or be the starting point of an acute or chronic nephritis, noninfectious, or if prolonged of a nephrosis, also noninfectious. The causes of the essential or non-

renal hypertensive group are unknown. Focal infection, therefore, is a very important factor of origin of both infectious and noninfectious lesions.

Nevertheless this division of inflammatory and degenerative renal lesions into an infectious or surgical group and a noninfectious or medical group is fundamental in diagnosis. The object of further discussion here is subdivision of the infectious group by classifying its many heterogeneous types in such a way that they may be differentiated and recognized clinically.

*Classification of Renal Infections (Surgical).—*Any disease or abnormality of the urogenital tract has a tendency to produce urinary stasis or obstruction. Whenever this occurs, no matter how temporary, infection is imminent. These infections may come from the outside or from a lower portion of the tract, ascending; from the lymphatics, as cecum to right kidney, or from the blood, as in focal infections. It is not possible to determine always the source of infection. All three routes may be active together or variously at different times. But the important factor is lowering of local resistance. Trauma of any kind may do the same thing and an infection occur which would not have occurred without it. Any condition which impairs renal resistance as renal stone or faulty hygiene is an accessory of infection. A good primary division of renal infections, therefore, is into the following two types:

Type A.—Infections resulting from organisms which reach the kidney through the blood stream in overwhelming numbers, particularly virulent or specifically disposed.

Type B.—Infections resulting because of some urogenital abnormality or condition which acts to lower local resistance, or to furnish a portal of entry.

THREE CLINICAL GROUPS OF RENAL INFECTIONS

Classification into Type A depends on whether the urogenital tract is normal, and into Type B whether the abnormality is a factor of incidence. Particularly virulent overwhelming infections occur with marked abnormalities in which the abnormality probably had nothing to do with the onset. Only when the abnormality is an accessory of infection is it significant. With these facts and characteristics in mind, three distinct clinical groups of renal infections are recognizable:

- I. The specific group.
- II. The focal group, or Type A infections.
- III. The urogenital group, or Type B infections.

* Read before the Section of Urology at the sixtieth annual session of the California Medical Association at San Francisco, April 27-30, 1931.

Pathologically, lesions in any one of these groups may be indistinguishable. Any pathological classification unrelated to clinical conditions is of little practical value. Pyelitis and pyelonephritis are too general and indefinite, not much better than the term "pyuria"; but qualifying each with the specific, focal or urogenital factor, which is directly related, will give definition and clinical meaning.

The pathological types of infection are generally grouped as follows:

Cystitis	Suppurative lesions
Cystopyelitis	Acute suppurative nephritis
Pyelocystitis	Multiple cortical abscesses
Pyelitis	Carbuncle
Pyelonephritis	Perirenal abscess
Acute	Perirenal and pararenal lesions
Chronic	Rare types of lesions
Atrophic	Cystica
Infected hydronephrosis	Granulosa
Pyonephrosis	Leukoplakia
Septic infarction	Malakoplakia

Only exceptionally do these lesions have definite clinical recognition. By qualifying the presumptive pathological lesion, which is indicated by the complete clinical and urological study, with an etiological factor of incidence also indicated by this study, accuracy of diagnosis, success in treatment, and a mutual basis of understanding is secured such that one doctor will know what the other one is talking about.

I. THE SPECIFIC GROUP

The specific group of renal infections includes those infections characterized by the causative agent as: (1) Renal tuberculosis. (2) Gonococcal nephritis. (3) Actinomycosis. (4) Syphilis (nephrosis). Everyone understands what is meant by the diagnosis of tuberculous pyelonephritis or pyonephrosis.

II. THE FOCAL GROUP

Relatively few pyogenic organisms invade the urinary tract. *Bacillus coli communis* and allied groups (such as *Proteus vulgaris*, *aerogenes capsulatus*, *fecalis alcaligenes*, and *pyocyaneus*) predominate. *Streptococcus* and *staphylococcus* are relatively infrequent, but it is uncertain how infrequent. Both experimental and clinical results indicate it may at times be the primary invader with a colon-like organism secondary and outgrowing it (Hayden, Bumpus), but Helmholz was unable to produce colon infections in rabbits which had previously been inoculated with cocci. Here the colon did not outgrow cocci.

Limitation of Bacteriological Study.—Bacteriological studies of chronic pyelonephritis, particularly that secondary to urogenital obstruction, often give varying findings. Mixed infections occur. Take the following three cases, shown in Table 1, studied ten years ago, when bacteriological studies and vaccines were popular: Cases 1 and 3 show five different organisms; Case 2, four; and mixed infection is frequent in the others. Knowledge of the type of organism is important in the interest of a complete diagnosis, but not nearly so significant as knowing that organisms are present. The fact that it is a bacillus or coccus and the type of either is a matter for due consideration only after one has deter-

mined whether or not its presence is secondary to accessory urogenital conditions. The only renal infections in which knowledge of coccus or bacillus invasion is of great significance is in a subgroup of the focal group under discussion. Unfortunately it is just in this very subgroup that the urine most frequently is sterile and negative. The characteristic lesion in the kidney of this subgroup is due to a coccus, but as the lesion is cortical and does not communicate with the tubular system or pelvis, the urine is negative. The only time, therefore, when determination of the type of pyogenic organism in the urine would be of real diagnostic value, the organism does not reach the urine. At other times when the urine is loaded with organisms, the type of organism, whether bacillus or coccus, has no immediate significance of the nature of the renal lesion. At times cocci invade tubules and pelvis, and bacilli can produce cortical abscesses. Glomeruli and interstitial tissues, the favorite field for cocci, are not immune to bacillary invaders. Therefore the first consideration is not so much the type of organism as the presence of organisms and their probable source.

The blood stream is invaded by organisms from many different sources. The specific group given above is characterized by renal involvement with a specific organism (tubercle bacillus, gonococcus, etc.). The focal group is characterized by renal involvement with pyogenic organisms not as a rule intercurrent but late, even months after the acute stage of the original infection and this original focus may have been so transitory as to have been almost forgotten. Foci need not persist.

These focal sources of renal infection may for convenience be considered in relation to four systems: integumentary, respiratory, digestive, and miscellaneous sources. Integumentary foci are: infected wounds, boils, furuncles and carbuncles, erysipelas, impetigo, osteomyelitis, etc.

Respiratory foci are: otitis, mastoiditis, rhinitis, bronchitis, bronchopneumonia, pleurisy, etc.

Digestive foci are: angina, tonsils, teeth, appendix, gall-bladder, colon, visceral purpura, bowel stasis or faulty hygiene, etc.

Miscellaneous foci occur as pus tubes, etc. It is possible for infection anywhere to be a source of renal infection.

Streptococci and *staphylococci* (*pneumococci*) dominate integumentary and respiratory tract infections and such infections of the digestive system as angina tonsillitis and infected teeth; but cannot compete with bacillary or colon-like organisms in the remaining alimentary tract conditions which act as foci. The bacillus group also dominates urogenital types almost 90 per cent.

Although the mechanism of renal invasion from urogenital foci may be hematogenous or blood-borne in many cases just as from integumentary, respiratory and digestive system foci, this bacillary predominance and the difficulty often of determining whether renal involvement is hematogenous, lymphogenous or ascending makes it logical to consider all urogenital foci, whether

TABLE 1.—*Bacteriological Study of Three Cases*

Date	B. coli	Subtilis	Alcaligines	Aerogenes	Staphylococcus		Streptococcus		Sterile
					Albus	Aureus	Non-hemolytic	Viridans	
I. Young									
July 7, 1919	+								
August 9, 1919					+		+		
August 14, 1919						+			
August 16, 1919							+		
August 23, 1919								+	
August 29, 1919	+								
October 4, 1919	+				+				
November 20, 1919					+				
November 22, 1919						+			
December 3, 1919					+				
December 24, 1919					+				
January 3, 1920									+
January 5, 1920	+								
II. McAfee									
January 10, 1918					+				
January 22, 1918	+				+				
March 21, 1918	+				+		+		
September 23, 1919			+						
October 31, 1919			+		+				
January 6, 1920									+
III. Tyler									
August 5, 1918	+								
October 1, 1918	+	+			+				
October 7, 1918	+								
October 10, 1918	+								
October 15, 1918	+								
October 17, 1918	+		+		+				
November 8, 1918	+						+		
November 13, 1918	+								
December 9, 1918					+				
December 16, 1918					+				
December 28, 1918									+

metastatic or not, in one group as accessories of infection along with obstruction or trauma. The route of infection is relatively unimportant anyway compared to the source. With the understanding that foci of infection of the urogenital tract below the kidney may feed organisms into the blood stream as other infections do, to be carried to the kidney and infect it, yet for the practical purpose of classification, these foci will be considered as a subdivision of urogenital sources of renal infection under the next or accessory group. The following outline will indicate their scope:

Urethral (instrumental injury with chill and sepsis, marital urethral injury, ascending from the outside—contamination from diapers in children, and from leukorrhea in women).

Prostatic and seminal vesicular (prostatitis and seminal vesiculitis).

Vesical (cystitis, submucous ulceration, pericystitis—ureteral reflux accompanying disturbed mechanism of urination).

Ureteral (ureteritis, periureteritis, stricture—reflux or obstruction).

Pelvic (pyelitis and peripyelitis, abscess—pyelovenous backflow).

Parenchymal (reinfection and exacerbations, intrarenal ascension).

Clinically, three characteristic groups of infections result from invasion of the normal kidney by organisms from the various above sources. The focal group, therefore, may be definitely subdivided into:

1. Pure coccal suppurative lesions.

2. Obscure forms of bacillary or mixed infection.

3. Intercurrent infection.

Subdivision 1. *Pure Coccal Suppurative Lesions*.—Pure coccal cortical infections form a distinct clinical entity. They commonly occur from streptococci or staphylococci of integumentary foci. They produce renal suppuration which may be diffuse; diffuse suppurative nephritis, local; multiple cortical abscesses and conglomerate, carbuncle. At the onset they are acute with hyperpyrexia, leukocytosis, and general intoxication. The urine is almost always negative, even to culture in the acute stage and frequently throughout the course of the disease which may last for months. They are usually unilateral. Sometimes, then, nephrectomy is life-saving. If not fulminating they may become chronic with frequent acute exacerbations, at which times renal tenderness may be marked, or they may go on to slow healing. These lesions are the commonest cause of perinephritic abscess.

The pathological terms define satisfactorily these clinical types of pure coccal suppurative infections. It is not often, however, that the surgeon can specify definitely before operation whether the lesion is a diffuse suppuration, multiple abscesses of the cortex, or a large carbuncle. No doubt, also, many of these patients go to healing without operation. But as a clinical group it is quite definite and best indicated clinically by associating the terms "coccal" and "suppuration" because other suppurative lesions of the kidney occur and other types of coccal infections occur.

Subdivision 2. *Obscure Focal Infections of Bacillary or Mixed Invasion*.—The focal renal infections form a heterogeneous group impossible of definite classification. They are recognized and diagnosed more through methods of exclusion than otherwise. The urogenital tract must be normal or any abnormality proven to be unrelated. They may be acute but, unlike the above cortical lesions of pure cocci, give immediate evidence in the urine by pus and bacteria. The bacillary infections in themselves, unlike the coccal, are never fatal at the onset. Unusually high temperatures occur. There is moderate to high leukocytosis. They tend to become chronic with periodic exacerbations. They are almost always bilateral. Removal of the focal infection early will cause them to disappear often without treatment. Otherwise atrophic changes develop with loss of renal function and renal insufficiency that during some exacerbation may develop into uremia.

These obscure cases without urogenital abnormality, which are also nonspecific and not of the pure coccal suppurative type, are difficult to recognize as well as classify clinically, but undoubtedly some attempt should be made to group different types of these focal infections. The terms "acute," "chronic" or "atrophic" pyelonephritis, qualified by the term "focal," will be a beginning in this much needed organization. When the clinical and urogenital examination indicates the type of focal invasion, this should also be qualified in the diagnosis.

Subdivision 3. *Intercurrent Infections*.—Intercurrent renal infections are almost always transitory and manifest as a rule only at the most active stage of the infection of origin, disappearing with convalescence. The kidney succumbs temporarily to organisms in overwhelming numbers. Included are those types of excretory focal nephritis occurring at the height of many infectious fevers—typhoid, scarlet, rheumatic, and relapsing fevers and pneumonia, measles, malaria and influenza, as well as other severe infections—as angina, tonsillitis, erysipelas, etc.

These infections are usually quite definite clinically and the term "pyelonephritis," intercurrent, with typhoid, influenza, etc., definitely characterizes the condition. Typhoid pyonephrosis is likewise specific.

III. THE UROGENITAL GROUP

In point of frequency, renal infections of accessory urogenital origin far outnumber infections of the specific and focal groups combined. So frequent and imminent are infections that the urologist must use the greatest care and precision with all methods of examination and treatment. Infection any place in the tract tends to spread to the kidney. Urinary stasis or obstruction is a common predisposing factor. Conditions of the focal group, particularly of the nonsuppurative subgroup of obscure infections, often coexist with urogenital conditions. Removal of the cause of obstruction may fail to clear the renal infection until a focus has been removed. But many renal infections are solely dependent on some accessory condition of the urogenital tract. Foci may be insignificant. The accessory conditions may be subdivided so that certain distinct clinical groups of renal infection will correspond with these subdivisions into (1) obstructive, (2) metastatic, (3) traumatic, and (4) transurethral conditions.

Subdivision 1. *Urinary Obstruction or Stasis*. As already stated, obstruction or stasis of urine anywhere in the tract is a common cause of renal infection by lowering renal resistance. The source of the organism is usually obscure. It may be of metastatic origin as in the focal group. It may reach the kidney by way of the blood stream through errors of intestinal hygiene. Bowel stasis or diarrhea may set colon bacilli free in the blood. A direct lymphatic path from the cecum to the right kidney is known anatomically, and at times the organism may follow this route. It may ascend from an infection of the lower tract by way of the ureteral lumen or such infections may feed organisms into the blood stream. These obstructions need not be continuous or prolonged. When temporary, as in vesical retention, infection may follow. For clinical reasons it is important to know whether the obstructive condition is of the lower tract, urethra and bladder, or of the upper tract, ureter and pelvis, and whether or not it is mechanical, adynamic or functional.

Not all of these infections are associated with changes of back pressure. Otherwise the term "infected hydronephrosis" could be generally applied. Pyelonephritis obstructive, however, is spe-

cific and designation of the location or type of obstruction would often much better qualify the pathological diagnosis.

Subdivision 2. *Metastatic Infection*.—It is a common experience in practice for infection of lower portions of the urogenital tract to spread to the kidney. By what route this invasion of the kidney occurs is not always at all clear. There may be some obstruction with lower tract infection that may be temporary or partial, as in many cases of prostatitis, so that in some cases an ascending invasion of the kidney may occur. Often the urogenital infection is not obstructive and then the invasion of the kidney is probably by way of the blood stream. At times several combination routes no doubt may occur to produce the renal infection. Because of the obscurity often present in these cases, designation of a metastatic pyelonephritis would have a definite meaning and the route of invasion is of little significance anyway. The term would specify that the infection of the kidney is secondary to infection in the urogenital tract, and the seat of this infection could often be designated to advantage as prostate, bladder, or ureter.

Subdivision 3. *Traumatic Infections*.—An infection will often arise in a kidney due to trauma from within, such as stone without obstruction, or to trauma or injury from without. In order to avoid confusion, the direct relation of trauma to the onset of infection should be clear. Many times trauma, such as a blow or fall, will precipitate an infection indirectly so that other etiological factors than trauma would have to be given due consideration in the diagnosis.

Subdivision 4. *Transurethral Infections*.—There are three definite types of transurethral invasion of the urogenital tract that often lead to renal infections. There can be no doubt that infection often ascends the short urethra of the female from the outside. The first effect, therefore, is an inflammation of the bladder or cystitis. How the infection reaches the kidney from the bladder is of little clinical importance. The source of the kidney infection has been the urethra and, therefore, prevention of recurrence of renal infection must be directed to the urethra. There are two distinct clinical types of ascending urethral infections which may be designated, ~~first, the marital type~~, and second, the contamination type.

The marital type is directly related to intercourse. Trauma to the urethra enables organisms to ascend or they may be mechanically worked up the urethra at the time, setting up a definite cystitis. Defloration cystitis is probably identical with marital cystitis of this type and not to invasion of the blood stream by organisms from the torn hymen as was originally supposed. That the organisms can ascend the urethra either mechanically at the time of intercourse or later because of trauma to the urethra when produced seems proven by a number of clinical cases like the following:

The patient was a nurse and her husband a doctor, so that their statements and observations

are of additional value. She had had recurring attacks of pyelonephritis which would invalid her for periods of two to six weeks once or twice a year for many years. She had been under treatment by pelvic lavage, ureteral dilatation, and general medical care for the elimination of all sorts of foci or other accessory causes. The urogenital tract on repeated examination appeared perfectly normal throughout. Ureteral dilatations had been followed vigorously without any permanent relief. Finally, the association of the onset of attacks to the marital relation was observed and precautionary measures instituted, such as vaginal douches before and the immediate instillation of a one per cent solution of mercurochrome into the bladder upon the first premonition of bladder irritation following intercourse. These prophylactic measures have prevented any attack of pyelonephritis of any kind for over four years.

The contamination type of ascending infection of the urethra must be common in many girl infants and, of course, prophylactic measures in regard to changing of diapers, douches, and local cleanliness are obvious. Such an explanation of some of the pyurias of childhood is supported by the greater frequency in girls and the fact that in about 50 per cent of these cases the infection is limited to the bladder, as proved by cystoscopy and ureteral catheterization, at onset or in the acute stage. With cystitis there is urinary dysfunction and all the factors necessary for a reflux to the kidney.

The third transurethral type of origin is instrumental. The urethral chill is probably a direct invasion, but in a very large percentage of cases inflammation of the kidney follows. Naturally organisms in the urethra that gain the blood stream sufficiently to produce chill could be carried by the same instrument into the bladder. It is, of course, well known that the normal bladder cannot be easily infected and, therefore, other associated lower tract conditions must be looked for in this type of case. The clinical designation of pyelonephritis transurethral is definite.

It is at once evident that one or more of the three clinical sources of infection may be associated. It is particularly common for urogenital and focal conditions to coexist, but it would seem a distinct clinical advantage to attempt a definite combined etiological-pathological classification and specify the presumptive renal lesion with its presumptive etiological factor. Specific, focal and urogenital pyelonephritides form three well marked definite groups of renal infection.

384 Post Street.

DISCUSSION

DONALD A. CHARNOCK, M.D. (523 West Sixth Street, Los Angeles).—Infectious diseases of the urogenital system have long been unsatisfactorily catalogued. In this paper Doctor Hinman has dispensed with the necessity of philosophizing upon academic questions and has confined his classification to descriptive terms regarding the lesion itself.

The first class deals with the small group of specific invaders and needs no comment. The second group describes lesions which arise from infection present outside the urinary tract. Group three in-

cludes the various types initiated by infection present within the urinary tract.

The term "pyelitis" long ago came to be used as a general classification for any form of urinary infection. I do not think this gives us an adequate description of the many forms of infection within the urinary tract. In Doctor Hinman's classification, in addition to the type of lesion, we are given the method of invasion and also the area responsible for the infection. The value of this clear-cut classification is apparent when we consider the necessity for satisfactory hospital records and the opportunity for clearly defined descriptions in referring patients to other consultants. In place of classifying a lesion under the general term of pyelonephritis or pyelitis we can now say, for example: Transurethral pyelonephritis (instrumental) which will immediately explain the case as one of renal infection with the primary focus in the urethra due to instrumentation.

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CHARLES P. MATHÉ, M. D. (450 Sutter Street, San Francisco).—We are greatly indebted to Doctor Hinman for his comprehensive clinical classification of renal infections into three distinct groups, viz., specific, focal, and urogenital. The necessity of classification at the present time is indeed very great in order that urologists may have a mutual understanding of how to classify the various infections that we encounter daily in the kidney.

The diagnosis of the focal group of coccal infection of the kidney; acute suppurative nephritis, single and multiple cortical abscess formation and renal carbuncle and those of the renal loge, paranephritis, perinephritic abscess, etc., has always been quite obscure because of the paucity of urinary findings as compared to the severity of the patient's illness. In these cases very little evidence of infection can be found in making a routine examination of the urine. It has been my experience, however, that centrifugalization of the urine collected over a long period of time will often reveal the invading staphylococcus and is of great significance in aiding in the diagnosis of these lesions. They are more often found in cortical lesions of the kidney and less readily encountered if the infection is in the perinephritic tissues. In these cases the history of preëxisting foci in the skin, such as boils, furuncles, carbuncles, paronychia, etc., is of great significance. If the infected embolus lodges in the end arteries of the glomeruli, suppurative nephritis, cortical abscess, or renal carbuncle results. On the other hand, if the staphylococci lodge in the terminal arteries in the perirenal fat, perinephritic abscess develops. Perinephritic abscess may also be formed from direct extensions of a cortical abscess through the kidney capsule or by way of the lymphatics. The significance of early diagnosis of acute suppurative nephritis was pointed out by Brewer in 1906, who recommended early nephrectomy before involvement of the opposite kidney had taken place. It is very important to distinguish between acute suppurative hematogenous nephritis due to the staphylococcus and severe acute pyelonephritis due to the colon bacillus. Early nephrectomy is usually always indicated in the former, whereas renal drainage and lavage through the ureteral catheter is adequate in the latter.

The great incidence of infection of the urethra, prostate and seminal vesicles favor renal infection, often acting as a focus of pyelonephritis. This was strongly emphasized by Professor von Lichtenberg and myself in papers delivered before the American Urological Association in 1929. The relation of infections of the gastro-intestinal tract, gall-bladder, appendix, etc., has long been realized and this entero-renal syndrome was strongly emphasized by Heitz-Boyer a number of years ago. Any treatment directed to relieve renal infection, in order to be efficacious must also be directed toward eradicating all possible foci of infection elsewhere in the body.

Doctor Hinman has done well to emphasize the rôle of congenital and acquired urinary obstruction and stasis in the production of renal infection. Back

pressure in the kidney not only may lower its local resistance, making it more susceptible to infection, but may also cause invasion of the renal cortex by organisms that had existed in the pelvis and collecting tubules for years. Thus, a pyelonephritic infection which had not been severe and had caused little appreciable damage to the kidney may extend to its periphery and invade the parenchyma forming numerous abscesses which result in destruction of this organ, thus necessitating nephrectomy.

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LIONEL P. PLAYER, M. D. (384 Post Street, San Francisco).—The author's classification gives surgeons a means of communicating their findings and diagnoses clearly and intelligently. Doctor Hinman's paper is the most concise and comprehensive, yet simple of any offered, to my knowledge, in the literature, and I wish to express my appreciation of his very excellent contribution.

An outline for the classification of urinary infections, may I suggest, should embody the following:

1. Type or types of organisms.
2. Origin of organisms, *i. e.*, skin, sinuses, tonsils, etc.
3. Mode of invasions, *i. e.*, hematogenous, lymphogenous by continuity of tissue or from contiguous tissues.
4. Areas or points infected in the particular organ attacked by these organisms or their toxins.
5. Effect on the organ itself.
6. Effect on contiguous and connecting structures and the general system.
7. Previous knowledge of the general or selective action of these bacteria and their toxins. With these data in mind in a classification as an aid to the various methods of diagnosis, the more apparent and also the obscure lesions due to urinary infections would be recognized more readily.

LENGTHENING OF THE LOWER EXTREMITIES*

By LEROY C. ABBOTT, M. D.
San Francisco

DISCUSSION by George H. Sanderson, M. D., Stockton; H. D. Barnard, M. D., Los Angeles; S. L. Haas, M. D., San Francisco.

THE purpose of this article is to describe methods of operative lengthening of the bones of the lower extremity which were developed by the writer[†] at the Shriners' Hospital for Crippled Children in St. Louis. During the past six years these methods were used in a series of seventy-three children in whom shortening was due to infantile paralysis, congenital malformation, and destructive disease of the hip and knee joints. In forty-eight cases the tibia and fibula were lengthened, while in the remaining twenty-five cases the lengthening was done on the femur. The experience gained in this group of patients has been interesting and profitable, and the results have been decidedly encouraging.

These methods are based on three fundamental principles of bone lengthening, which are as follows: (1) To lengthen the bone, traction and countertraction must be taken directly upon that bone; (2) to overcome the elastic resistance of the soft parts, this traction must be of the slow,

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† The writer is indebted to his former associates, Dr. C. H. Crego and Dr. A. O. Adams, for their aid in the development of the apparatus for lengthening of the extremities.

continuous type; and (3) to prevent harmful pressure on soft parts with sloughing of the skin and infection of the bone, accurate contact and alignment of the fragments must be maintained during the lengthening process. The first two principles have been emphasized by Putti in his article on the "Operative Lengthening of the Femur." The importance of the third principle has been stressed in our previous publications on this subject, and its observance is essential for successful lengthening without the development of serious complications.

Theoretically the above principles may be realized by osteotomy of the bone, insertion of pins through the upper and lower fragments, and the application of a special apparatus to provide traction and control while the bone is being lengthened. The practical application of these principles in lengthening of the tibia and fibula has led to the development of a standard method which has been used with uniform success in our clinic and in other clinics in various parts of the country. In lengthening of the femur, however, we have been less fortunate because we have experienced great difficulty in devising apparatus which will maintain alignment of the fragments. In attempting to overcome this difficulty we have developed a number of methods. Satisfactory lengthening and fair alignment can be secured with any of them. With no one of them, however, have we been able to maintain the same uniform contact and alignment of the fragments as in lengthening of the tibia and fibula.

In the following paragraphs, therefore, we shall describe in detail our method for lengthening of the tibia and fibula, but in lengthening of the femur we shall confine our remarks to a general discussion of the various methods employed, emphasizing the advantages and disadvantages of each.

LENGTHENING OF THE TIBIA AND FIBULA

The procedure for lengthening of the tibia and fibula has passed through several stages of development. Originally we used two pins which were drilled through the tibia above and below the site of an osteotomy. Traction was acquired by screw extension pieces fastened to the ends of the pins on both sides of the leg. A special splint with four turnbuckles, also attached to the ends of the pins, was utilized for control of the fragments. Failure to maintain alignment of the bone, however, led to the use of two additional pins which were turned through the upper and lower fragments, respectively. With four pins excellent control of the fragments was maintained and their application aided us in the elimination of the turnbuckles and complicated supporting splint. Furthermore, when four pins are employed, their diameters may be reduced and, consequently, the healing of the wounds is proportionately diminished.

THE APPARATUS FOR LENGTHENING OF THE TIBIA AND FIBULA

The apparatus for lengthening of the tibia and fibula consists of the following parts:

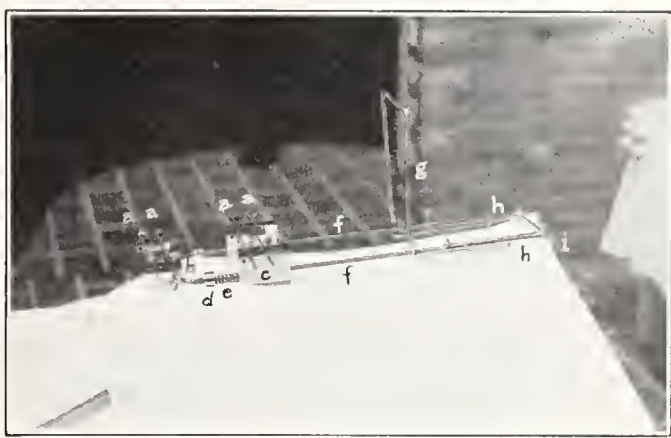


Fig. 1.—Apparatus for lengthening of the tibia and fibula. (a) Stainless steel pins fixed to the stationary and movable blocks b and c. (d and e) Thumb nut and spring fitting against movable block c. (f) Lateral threaded bars. (g) Foot support. (h) Telescopic metal tubes for lengthening of lateral bars. (i) Metal rod for fixation of lateral bars.

1. Four stainless steel drill pins.
2. An adjustable pin guide.
3. A combined traction and supporting splint (Fig. 1).

The pins are nine inches in length and one-eighth of an inch in diameter. They are made of stainless metal, because our experience has shown that there is less irritation to the soft parts than when ordinary steel is employed. The ends of the pins are drill-shaped so that they can be turned through the compact bone without preliminary drilling. This single operation reduces trauma to the soft parts and thereby minimizes the danger of infection.

To insure proper fitting of the traction apparatus it is essential that the pins be turned through the bone parallel to one another and in the same horizontal plane. For this purpose a special appliance termed a "pin guide" was devised. It may be described as consisting of two parts rectangular in shape, each six inches in length, which telescope at their inner ends. Each part has two holes drilled at its lateral extremity into which are fitted cylinders about three inches in length. The telescoping feature of the guide permits insertion of the pins in the upper and lower ends of the tibia in legs of various lengths.

The traction and supporting splint has been gradually modified until at present it consists of two threaded bars connected at their lower ends by an adjustable steel rod.** Attached to each bar are two solid blocks of metal; one is fixed to its upper end, while the other slides freely over its threaded surface. Each of the blocks, the stationary and the movable, have two holes drilled through their substance to receive the ends of the pins. Between the stationary block above and the movable block below a thumb nut and coil spring are attached. With tightening of the thumb nut the spring is forced against the movable block which moves downward and away from the fixed block. Thus the pins fastened to the blocks are separated and a telescoping of the fragments occurs with lengthening of the bones.

** This splint was devised by my former associate, Dr. C. H. Crego.

Two adjustable metal tubes slide over the lower ends of the lateral bars and are fitted with cylinders at their lower ends. After the lateral bars have been adjusted to the ends of the pins the metal rod is placed through the cylinders and held firmly by thumb screws. Thus a rigid and readily adjustable frame is secured. The entire apparatus is simple, easily applied, and possesses a high degree of mechanical efficiency.

THE DESCRIPTION OF THE OPERATION

A forty-eight-hour preparation of the skin of the leg and thigh is preliminary to the operation. On the operating table a tourniquet is applied above the condyles of the femur and the skin is painted with 70 per cent alcohol. The steps of the operation should be carried out in the following order:

1. Lengthening of the tendo Achillis.
2. Osteotomy of the fibula.
3. Insertion of the pins.
4. Application of the extension apparatus.
5. Osteotomy of the tibia.
6. Closure of the wound with drainage.
7. Removal of the tourniquet.
8. Suspension of the apparatus to the overhead bed-frame.

We advise lengthening of the tendo Achillis as a preliminary procedure in all cases except in those which have a calcaneus deformity of the foot. Otherwise the tension thrown on this structure during the process of lengthening forces the foot into equinus. The method is that used by Hoke.

Our next step consists of an osteotomy of the fibula through an incision anterior to the peroneal tendons. We also incise, transversely, the fascia covering the peroneal tendons and the bands which separate these tendons from the extensor longus hallucis anteriorly and the flexor longus hallucis posteriorly.

The pins are now inserted at the upper and lower ends of the tibia, the two above through the anterior third of the bone, and the two below through the middle third of the bone. These positions selected for the pins minimize the danger of injury to the anterior tibial vessels and nerve. With the skin pulled toward the center of the leg, the pin guide is placed firmly against the lateral aspect of the tibia and stab incisions are made at the levels of its four cylinders. The upper pin is then drilled through the tibia at right angles to the long axis of this bone and parallel to its anterior border. The upper cylinder of the pin guide is then passed over the projecting portion of this pin. The lower pin is then inserted by passing it through the lower metal cylinder of the pin guide and turning it through the bone. The two middle pins are now placed in a similar manner. All pins emerge through counter incisions on the inner surface of the tibia.

The lateral bars of the traction apparatus are now placed on the lateral aspect of the leg, fitting the drill holes of the stationary and movable

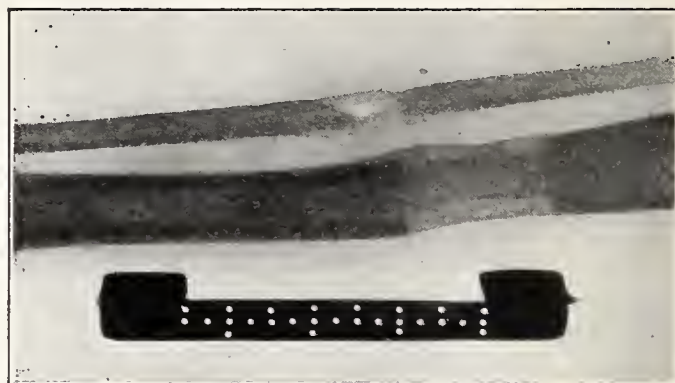


Fig. 2.—Anteroposterior roentgenogram of tibia and fibula two and one-half months after operation. A gain of one and three-fourths inches was secured.

blocks to the ends of the upper and lower pins. The lower ends of the lateral bars are then joined by the metal rod which is fixed in place by thumb screws.

The tibia is exposed through a gentle curved incision, five inches in length, made over the anterolateral aspect of the bone. To minimize the injury to the circulation of the periosteum this incision is carried down to the bone without dissection of the soft parts. The periosteum is then separated from the entire circumference of the tibia for a distance of about four inches, and with a motor saw two parallel cuts, about four inches in length, are made at its inner and outer surfaces. These cuts are joined at their upper extremities by a transverse section through the posterior cortex, and at their lower extremities by a transverse section through the anterior cortex. This provides a tongue on the lower fragment which lies behind the tongue on the upper fragment. At the middle of the wound the periosteum is incised transversely in its entire circumference, together with division of the interosseous membrane and deep fascia on the anterolateral aspect of the leg. The division of these fibrous structures decreases the resistance offered to lengthening of the bones.

The wound is closed in layers and at its upper end a small rubber tissue drain is inserted. The use of the drain prevents marked swelling of the leg subsequent to operation. The foot is suspended to the foot piece by means of an adhesive strip which is glued to its plantar surface. The apparatus is then attached to an overhead bed frame. This allows free motion of the knee throughout the process of lengthening.

POSTOPERATIVE LENGTHENING OF THE LEG

No attempt is made to lengthen the leg until all swelling has disappeared, which is usually at the end of the first week. The drain is removed in forty-eight hours.

Lengthening is begun by tightening of the thumb nuts an equal number of turns on the two sides. Measurements are then taken between the ends of the pins and recorded. On the second day a few more turns produce a little more separation of the fragments and again the measurements are taken. This procedure is carried out daily until the desired length is secured. The average daily gain is one-sixteenth of an inch,

and the entire time of traction is from four to five weeks. To provide a check on the length gained and the position of the fragments, roentgenograms are taken at intervals (Fig. 2).

The extension apparatus remains in place from eight to ten weeks. Upon its removal the leg is encased in a plaster of Paris cast. This cast is bivalved to allow dressing of the pin wounds and motion at the knee and ankle joints.

To determine the state of the repair process, roentgenograms are taken every two to three weeks. In the majority of cases sufficient callus has formed in four or five months to allow the patient to walk with a Thomas walking caliper splint. This splint is worn continuously for two or three months and then gradually discarded.

Your attention should be directed here to the importance of the care of the foot during the period of postoperative traction. Despite the lengthening of the tendo Achillis at the time of operation there is a tendency, during the process of stretching, for the foot to be forced into equinus. Moreover, the foot frequently assumes a marked valgus position, even if it had been stabilized previously. We deem it unwise, therefore, in dealing with cases of infantile paralysis, to stabilize the foot before lengthening of the bones is done. During the process of lengthening of the leg we aim to control the position of the foot as far as possible, but if unpreventable deformities arise we correct them by stabilization at a later date.

LENGTHENING OF THE FEMUR

In the first stages of our work on lengthening of the femur we attempted to use traction on one side of the thigh in a similar manner to that advocated by Putti. In our hands the method was unsatisfactory; first, because the pins were not secure and, second, because we were unable to control the position of the fragments. Consequently a procedure was devised similar to that used early in the development of a method for lengthening of the tibia and fibula. Two pins, three-sixteenths of an inch in diameter, were in-

serted in a transverse direction in the upper and lower ends of the shaft of the femur. The lower pin was introduced through a stab incision on the lower inner thigh three-fourths to one inch above the epiphyseal line. To avoid injury of the femoral and profunda vessels the upper pin was inserted through an incision made on the upper inner aspect of the thigh which exposed the inner border of the adductor longus muscle. The fascia overlying this muscle was traced inward until the femoral vessels were seen lying between this muscle and the inner surface of the femur. The vessels were retracted forward and the pin was then passed through the substance of the adductor longus muscle and turned through the bone and a counter incision on the outer aspect of the thigh. The femur was then exposed through an incision on its posterolateral aspect with separation of the biceps femoris and vastus lateralis muscles. After elevation of the periosteum about the entire circumference of the bone for a distance of four to five inches, a Z-shaped osteotomy was performed with a motor saw and osteotome.

Traction was secured by screw extension pieces which were fastened to the ends of the pins on both sides of the thigh. The screw extension pieces also prevented lateral displacement of the fragments. Control of their position in the anteroposterior plane was facilitated by the use of a supporting splint, knee flexion piece, and turnbuckles (Fig. 3). The results secured in the fifteen cases operated upon were entirely satisfactory from the standpoint of lengthening secured. In one case we obtained as much as three and one-half inches. The chief difficulty was inability to maintain contact and accurate alignment of the fragments, particularly in the anteroposterior plane. In several cases a very considerable displacement occurred. Again there is a reasonable objection to this method because of the incision required to place the upper pin. A rather painstaking dissection must be carried out and the risk of infection of the wound is increased. Our experience with this method has shown that mild sepsis with long-continued drainage is prone to occur where the pins are inserted through incision and dissection.

Anticipating better control of the fragments, we used four small pins with the same traction splint which we now use in the lengthening of the tibia and fibula. We found, however, that the insertion of four pins parallel to one another and in the same horizontal plane in a very much shortened femur was a complicated procedure. While better control of the fragments was acquired in the two cases operated upon, we abandoned the method because of the technical difficulties of operation.

To avoid an incision on the upper inner thigh we transfixed the upper fragment in a vertical direction as advocated by E. C. Bull of San Francisco. Traction was then applied by screw extension pieces, the upper ends of which are fastened to the vertical pin while the lower ends are attached to two horizontal bars which are

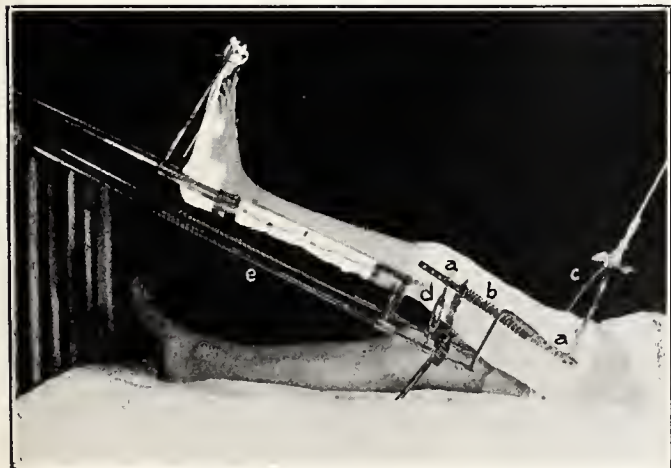


Fig. 3.—Apparatus employed in two horizontal pin method for lengthening of the femur. (a) Upper and lower pins. (b) Screw extension pieces attached to the ends of the pins. (c) Steinman stirrup for support of upper pin. (d) Turnbuckle for control of lower pin. (e) Supporting splint with knee flexion piece.

fixed to two vertical uprights. Through perforations in their substances these vertical uprights are attached to the ends of the pins. The use of the vertical pin lessens the chances of displacement of the upper fragment in the anteroposterior plane, but it does not eliminate its deviation in a lateral direction. A further objection is that the wound in the region of the buttock may become infected, and in one of our cases a considerable slough of this wound occurred from pressure of the traction apparatus. Nevertheless we are favorably impressed with this method and believe it worthy of a more extended trial.

We have also used an upper vertical and two lower horizontal pins in two consecutive cases. In both instances satisfactory lengthening was secured. In one, good alignment was maintained, while in the other, considerable displacement of the fragments occurred.

In patients with ankylosis of the hip we have lengthened the femur by means of the Hoke traction plaster with a horizontal pin through the lower fragment. A plaster of Paris spica is applied to the sound limb, bringing the plaster well down over the pelvis on the opposite side. The free end of a U-shaped stirrup of iron bar about six inches longer than the shortened leg is then incorporated in the plaster spica. To the lower end of this stirrup a ratchet is attached. Traction is obtained through chains which are fastened at their upper ends to the pin, at their lower ends to the ratchet. Countertraction is effected against the sole of the foot on the sound leg. It is surprising the facility with which lengthening occurs with this method. The alignment of the bone is more readily maintained because of fixation of the upper fragment.

In one case with a freely movable hip we employed the Hoke traction method with a vertical pin to maintain alignment of the upper fragment. Satisfactory lengthening was obtained with only a moderate displacement of the fragments.

From the foregoing paragraphs it will be seen that none of the methods developed for lengthening of the femur were satisfactory in every respect. In ankylosis of the hip joint, lengthening can be accomplished in the simplest and most effective manner by the Hoke plaster apparatus and skeletal traction. With a movable hip-joint transfixion of the upper fragment by horizontal or vertical pins seems necessary to maintain alignment. This alignment and contact of the bony fragments is of importance in the prevention of delayed union, and we find that the time required for consolidation of the callus is in direct ratio to the degree of their separation. The undesirable feature of transfixion of the upper fragment by horizontal or vertical pins is the danger of infection with subsequent drainage of the wound. Therefore the most scrupulous technique should be used in their insertion and in after-care of the wounds. It is possible that the danger of infection may be further minimized by the use of a fine wire in place of a steel pin, and it is our intention to try this method in the near future.

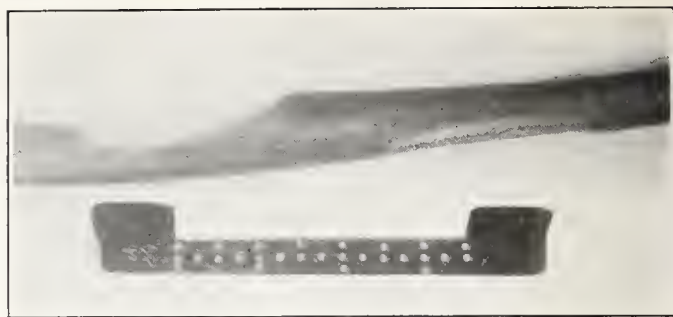


Fig. 4.—Lateral roentgenogram four months after lengthening of the femur in a case of infantile paralysis. A gain of two and one-half inches was secured.

POSTOPERATIVE LENGTHENING OF THE FEMUR

The postoperative lengthening of the femur is much the same as described for the tibia and fibula. In the former, however, we have found it feasible to begin traction on the fourth or fifth day after operation. Furthermore, we are able to lengthen this bone with greater rapidity and have gained as much as one-eighth of an inch per day in comparison with the average daily lengthening of one-sixteenth of an inch obtained in the tibia and fibula (Fig. 4).

After consolidation of the callus, ambulatory treatment is best carried out by supporting the limb in a plaster of Paris spica. The walking caliper splint is not sufficient for protection and does not prevent leverage action at the site of union. In two of our patients fractures occurred which were directly attributable to this leverage action.

RESULTS

The operation has been performed on seventy-three patients. In forty-eight the tibia and fibula were lengthened, while in twenty-five the lengthening was performed on the femur. The maximum gain in length of the tibia and fibula was three and one-fourth inches, the minimum one and one-half inches. In the femur the maximum gain was three and one-half inches, the minimum one inch. The gain of but one inch occurred in a child five years of age in whom union took place before the desired length could be obtained. In two patients gains from four to four and one-half inches have been secured by separate lengthening of the femur and tibia. The oldest patient operated upon was nineteen, the youngest eight.

The average time of union of the fragments in operative lengthening of the bones of the lower extremity sufficient to permit weight bearing with protective splints was from four to five months. In lengthening of the femur, where there was separation of the fragments, the time required for union was increased in direct proportion to the degree of their separation. In both tibia and femur lengthenings with good alignment of fragments, restoration of the medullary canal was observed in from ten to twelve months after operation.

COMMENT

To obtain the most satisfactory results with these procedures the surgeon must use discretion in the selection of his cases. He must be certain

that the shortening of the limb plays a major part in the production of the disability. In the presence of other contributing causes, as is so frequently seen in crippling conditions of childhood, the determination of the importance of the shortening as a source of disability must not rest alone on comparative measurements of the extremities. It has been our practice, therefore, to have the patients walk on boards of various heights so that we may detect any change in gait. The height of the board which produces the greatest improvement in gait may be used as an index for the length desired. A striking example of the importance of this preliminary examination of the patient's gait is seen in cases of anterior poliomyelitis with gluteus medius paralysis. Such a patient often walks better with a certain amount of shortening, and to lengthen the limb to the full amount, as disclosed by measurements, would often increase the disability. It should also be pointed out here that contributing causes of disability should be removed as far as possible before lengthening of the leg is to be considered. The notable exception to this rule is deformity of the foot which is often best corrected subsequent to lengthening of the bones.

Complications have occurred much less frequently in lengthening of the tibia and fibula than where the lengthening was done on the femur. In the former we have had two incomplete fractures through the callus subsequent to operation. In the latter we have had seven fractures through the callus occurring in cases with displacement of the fragments and in which inadequate protection was provided during early weight bearing. In instances of faulty alignment with massive callus formation the danger of fracture may be lessened by immobilization until consolidation has taken place, and by providing proper protection when the patient becomes ambulatory. In all of the fractures union has occurred with conservative methods of treatment, namely, complete rest and fixation of the limb.

We have had three cases of paralysis from injury to the nerves. In one operative lengthening of the tibia and fibula a paralysis of the dorsiflexors occurred immediately after operation. We attributed this to direct pressure of the upper pins against the anterior tibial nerve. That we were correct in our assumption was proven by the disappearance of the paralysis a few weeks after the pins were removed. In this patient we gained two inches of lengthening. In two cases of femur lengthening we had injury of the sciatic nerve with paralysis of the muscles which control the foot. In one of these the stretch on the sciatic nerve was produced by a faulty position of the limb following the operation. To maintain alignment of the fragments we fixed the extremity with right-angle flexion of the hip and complete extension of the knee, a position which placed the maximum tension on the sciatic nerve trunk. This resulted in paralysis of the foot muscles after we had secured one inch of length. Despite

this paralysis we brought the hip into full extension and gained two inches in length. The second case of paralysis of the sciatic nerve was caused by subluxation of the knee, prominence of the head of the fibula and lengthening with the hip held in flexion. In the first patient the paralysis cleared up entirely in three months' time; in the second, a partial recovery had taken place at the time of the last observation, which was about four months after operation.

Infection of the wounds for exposure of the bones occurred in one case of operative lengthening of the tibia and fibula. A localized osteomyelitis developed which required drainage and sequestrectomy. Despite the infection a gain of two inches was obtained. In another patient, sepsis of the operative wound in lengthening of the femur was due to an infection of the operator's throat. Cultures from the wound and throat of the surgeon showed hemolytic streptococci. Thorough drainage of the soft parts was instituted, but no operation on the bone was necessary.

Infections of the pin wounds have not been a troublesome feature in the operative lengthening of the tibia and fibula. In the four-pin method the wounds have healed in an average time of three weeks. With the larger pins in femur lengthening, a period of four to six weeks is usually required for complete healing. In several cases where the upper pin was introduced through the femur by incision, infection with prolonged drainage has occurred. In some of these, healing was not secured until after removal of small ring-shaped sequestra. This again emphasizes the importance of avoiding incisions for insertion of the pins.

SUMMARY

1. In this article the writer has described methods which he has developed for the operative lengthening of the tibia and fibula and the femur. These methods have been used in seventy-three children. The oldest patient was nineteen, the youngest eight.

2. The method for lengthening of the tibia and fibula may now be regarded as an excellent procedure where marked shortening is a cause of serious disability.

3. A number of methods have been developed for lengthening of the femur. Our difficulty with all of them has been in maintaining alignment of the fragments. Failure to control the position of the fragments is the main cause of delayed union and postoperative fracture. In its present stage of development we regard the operation for lengthening of the tibia and fibula as safe and sound in the hands of those experienced in bone surgery and who, in addition, have familiarized themselves with every detail of operation and postoperative care. We are hopeful that with further experience a method for operative lengthening of the femur will be devised which will be as simple and effective as that employed for the operative lengthening of the tibia and fibula.

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DISCUSSION

GEORGE H. SANDERSON, M. D. (809 Medico-Dental Building, Stockton).—Operations to equalize the length of the lower extremities have been done for many years by various methods and with varying degrees of success. Rizzoli as early as 1847 equalized the lower extremities by shortening the normal leg, and this method has been more or less in use ever since.

Leg lengthening is far more constructive as it aims at the production of the natural length of the leg by operating on the affected side. It has the additional advantage of being no risk to the normal, or the more normal leg. However, bone shortening has its indications. It is much easier to do, is somewhat less risk, and the period of postoperative disability is considerably shorter. Where a person happened to be taller than desirable, and the legs unequal, the desired shortening would be accomplished. This is however, rarely the case, as almost all cripples are below the average stature, and would therefore much desire to be taller.

Sensing the desirability of the preference of lengthening, Codivilla in 1905 began lengthening the lower extremities in cases shortened following fractures, by means of osteotomy followed by skeletal traction. Many others then used this method. The results were not very satisfactory as the desired degree of lengthening was not obtained, and delayed union usually ensued.

In 1918, Putti reported the use of an instrument which produces both traction and countertraction directly upon the bone to be lengthened, as well as continuous elastic expansive traction, by means of an incorporated spring. This instrument embodies some of the principles which Doctor Abbott has developed in his method.

While Putti reported some excellent results, in spite of the inevitable delayed union, his apparatus was not successful in the hands of others, and leg lengthening became quite unpopular, most operators returning to the old shortening operations for equalization, or being content with shoe irons and other unsightly and clumsy mechanical contrivances to make walking possible on the two legs.

Up to the time of Doctor Abbott's work, bone lengthening had been done almost entirely on the femur, and practically all successful cases had been those where shortening had been due to fracture. Doctor Abbott set out to develop a method applicable to shortening due to infantile paralysis and other conditions in childhood which result in growth disturbances. This is a more difficult problem in that it deals with a condition where the desired length has never existed. He soon found that in infantile paralysis, shortening takes place to a greater extent in the tibia and fibula than in the femur, and made his apparatus applicable to the lengthening of these bones as well as to the lengthening of the femur. Furthermore, he developed the only method which maintains contact between and accurate alignment of the fragments. This was found to be more easily maintained in the lower segment of the leg, while the lengthening itself was found to be somewhat more difficult there. This method has also practically done away with the development of delayed union, which was the rule with previous procedures. Last year I had the good fortune to visit the Shriners' Hospital at St. Louis and see this wonderful work going on under the supervision of Doctor Abbott. I was truly amazed

to find not less than eight patients there undergoing leg lengthening at the same time. It was most pleasing to see this very major complicated procedure being carried out there with no evidence of concern, in a matter of fact way as if it were practically a routine procedure. I am sure you will all feel after seeing his pictures, as I did, after visiting his clinic, that this development is really a great contribution to surgery.

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H. D. BARNARD, M. D. (2400 South Flower Street, Los Angeles).—The bone lengthening procedure, as worked out by Doctor Abbott, constitutes a distinct contribution. Our experience at the Orthopedic Hospital in Los Angeles dates back to May 1929, and in our total of eight cases, we have been decidedly conservative in selecting patients with proper regard as to the indications, and have been impressed with the results.

The procedure is undoubtedly a major undertaking and requires scrupulous attention to detail. The results obtained by the use of the four-pin apparatus indicate that the keeping of proper alignment is decidedly facilitated. In our series, one infection occurred which apparently in no way affected or compromised the end result, which was perfectly satisfactory. In these cases we obtained an average increase in length of approximately two and one-eighth inches. The procedure should not be attempted by surgeons not accustomed to the frequent surgical invasion of bone, nor in a hospital where the entire personnel is not familiar with the practical problems associated with the care of patients in apparatus of this type. We feel that great credit is due Doctor Abbott in placing this procedure on a practical basis.

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S. L. HAAS, M. D. (450 Sutter Street, San Francisco).—Bone lengthening has been placed on a sound practical basis by Doctor Abbott. One is prone to forget after performing this operation that it took some courage primarily to sever practically all the main hindering tissues of the leg and then subject the vessels and nerve to a stretching of one or more inches. Just how much would the vessels and nerve stand without permanent injury, the possibility of gangrene, infection, failure of union and the yielding of the soft osteoid callus to traction, were important problems that had to be solved. The success of the operation is sufficient proof that all these questions have been answered during the period of investigation.

At the Shriners' Hospital in San Francisco twenty-five tibial lengthenings have been performed. We have utilized the original Abbott apparatus with two pins, without the equalizer, in most cases. Although at times there has been some displacement of the fragments, the clinical results in all the patients have been satisfactory. Recently we have been using an apparatus designed by Moore of Chicago which is rather simple to manipulate and gives good results. We have substituted movable side pieces with multiple holes instead of his fixed side plate. This does away with the necessity of sterilizing the apparatus and driving the pins in an exact line. With the movable plates the apparatus can be put on at the completion of the operation.

It is important, as Doctor Abbott pointed out in his original article, to inspect frequently the line of incision on the dorsum of the foot and to watch out for pressure necrosis of the skin. Do not try to hold the fragments down with external pressure over the crest because of the danger of skin necrosis. In one patient we had a wide separation of the skin after the stitches were removed, but the wound healed without any bone infection. We have had no cases of osteomyelitis.

It may be well to postpone the stabilizing operation until after the lengthening, but we usually perform the stabilization of the foot about the ninth year and

the lengthening two or more years later. We have not been bothered by the subsequent deformity of the foot, but there has been a tendency toward loss of motion in the ankle joint and increase of the equinus.

The selection of a suitable case for lengthening demands considerable judgment, as stated by Abbott. In the patients with weak hip muscles it is often difficult to decide whether the bad gait is caused by the weak glutei or by the shortening. Whenever it is necessary we have performed the Ober or Legg operation as a supplementary procedure.

Some surgeons advise against lengthening operations unless the shortening is at least two inches. It is well known that the pelvic tilt will take care of one and one-half inches of shortening, but a shortening of one inch in paralytics may cause more disturbance than two inches in a nonparalytic. Furthermore, it is often difficult to determine the amount of lengthening that is best for the individual. The alignment test and walking with a raise on the shoe is advisable, but I believe that lengthening up to the full amount of measured shortening is advisable because, as a rule, a further shortening takes place up to the time of full growth.

As most of our lengthenings have been done on patients already suffering from a rather severe degree of paralysis, one may experience more trouble should an attempt be made to lengthen a leg without primary nerve disturbance.

The observation on femoral lengthenings is limited to the results of eleven operations. The most troublesome complication has been the restriction of flexion of the knee joint after operation. This I believe is due to a fibrosis in the joint itself, secondary to reaction of the pin near the quadriceps pouch.

With the use of the Hoke traction apparatus, one could perform a lengthening of the femur quite satisfactorily. It may be advisable to place one pin in the upper end of the tibia for the first part of the lengthening and then, if necessary, utilize a pin in the femur for the completion of the operation.

TEMPORAL LOBE LESIONS: DISTURBANCES OF THE VISUAL PATHWAYS*

REPORT OF CASES

By HARRY A. CAVE, M. D.
San Diego

DISCUSSION by Howard W. Fleming, M. D., San Francisco; Carl W. Rand, M. D., Los Angeles.

THE object of this paper is to call attention once more to certain facts that will aid in the correct and early localization of intracranial neoplasms. Since the visual fibers, either primary or secondary, extend almost the entire length of the anteroposterior diameter of the cranial vault, it is evident that the interpretation of signs and symptoms resulting from their interruption by a disease process becomes vitally important and affords valuable information from a localizing standpoint. This is especially true in lesions of the temporal lobe.

LOCALIZATION OF INTRACRANIAL NEOPLASMS

The greatest problem in connection with intracranial neoplasms has been not so much the diagnosis itself as the localization of the lesion once the diagnosis is made. This is especially true in

those cases in which the so-called silent areas of the brain are involved and it, therefore, behooves us as diagnosticians to call attention to and utilize every possible means at our disposal to make as early and as accurate a diagnosis as is possible.

In 1899, thirty-one years ago, Byron Bramwell,¹ in an article on the localization of brain tumors, made the statement that "tumors of the temporosphenoidal lobe, and more especially those of the right side, were of all tumors the most difficult to diagnose because they involved the most silent areas of the brain." Such a statement was the result of the lack of accurate anatomical knowledge of the structures involved in the temporal lobes, namely, the visual pathways.

The anatomical details of the visual tracts were accurately worked out and described by Niessel, Von Magendorf, Archambault, and other anatomists, but it was Adolf Meyer² who in 1907 first realized the clinical significance of these findings. He called attention to defects in the visual fields resulting from lesions affecting the optic radiations during their passage through the temporal lobes where they make a forward and ventral detour around the temporal horn of the lateral ventricle before reaching the calcarine fissure of the occipital cortex (Figs. 1 and 2).

The importance of these anatomical findings was still unrealized as late as 1911, when Foster Kennedy,³ in a careful symptomatic analysis of nine cases of temporosphenoidal lobe tumors from the records of the National Hospital of Queens Square, London, failed to attach any significance to the value of defects in the visual fields, saying that "an examination of the pathological findings suggests the probability of a hemianopsia having been present during life. Five patients were examined perimetrically and the sole abnormality discovered was the concentric contraction of the visual fields, so often associated with severe and especially protracted papilloedema."

Cushing⁴ in 1921, however, in a series of cases with careful perimetric studies, pointed out the early involvement of the visual pathways in temporal lobe tumors. Of thirty-nine cases in which perimetry was possible thirty-three showed homonymous field defects, indicating involvement of the temporal loop of the optic radiation. He also called attention to the partial or quadrantal field defects which may later develop into a complete homonymous hemianopsia as being an early characteristic finding of temporal lobe involvement and urged the use of careful perimetry in all cases where a tumor is suspected.

A further contribution was made in 1925 by Lillie,⁵ who found that in one-third of a series of 168 cases of verified cerebral tumors the tumors occurred in the temporal lobe, and that forty-three out of fifty-one of these cases presented homonymous defects in the perimetric fields.

All four cases here presented had temporal lobe pathology and all of them showed characteristic visual field defects that were of localizing value. In three of the cases localization was possible by the perimetric field defects only, the neurologic

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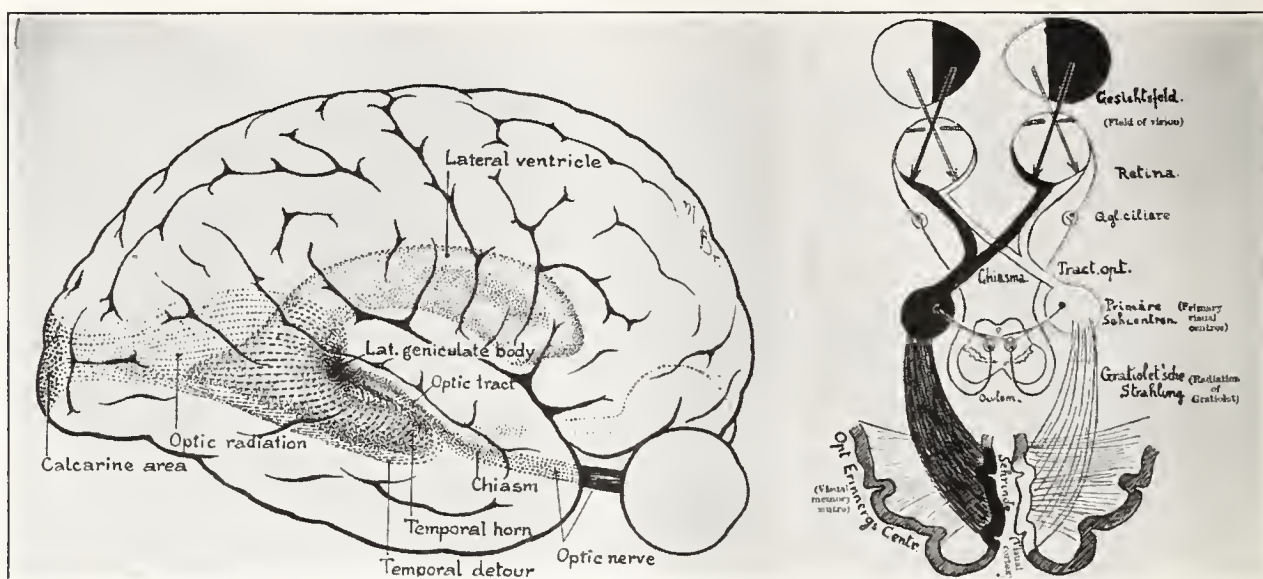


Fig. 1—Geniculo-calcarine pathway from the outer side, showing the temporal detour of the optic radiation. From Cushing, Harvey: Distortions of Visual Fields in Cases of Brain Tumor, Trans. Am. Neuro. Assn., p. 378, 1921.

Fig. 2.—Visual tract and pupillary reflex tract. From Bing, Robert: Compendium of Regional Diagnosis in Affections of the Brain and Spinal Cord, p. 192.

findings being insufficient to make an accurate diagnosis. The fourth case had both field defects and positive neurologic findings.

REPORT OF CASES

CASE 1.—A young man, a clerk, twenty-four years of age, was first seen in November 1928, complaining of headache, nausea and vomiting, diplopia, and difficulty in urination. The patient had been well until ten months previous to this time, when, following a drunken brawl at a roadhouse, he developed severe bifrontal headache with nausea and vomiting. He was taken to a hospital, where he remained for three weeks, during which time he was delirious, violent, unmanageable and disoriented; he was said to have had slight fever. Spinal puncture showed a blood-tinged fluid under increased pressure. At the same time he developed a right facial paralysis and blindness on the right side. His condition gradually improved and the patient went home, but he noticed a marked memory defect; he couldn't remember where goods were in the store or the prices of them, and he would start to make deliveries but would forget where he was going. Two weeks previous to examination his headaches returned, he became drowsy, stuporous and ataxic, and had difficulty in walking and in starting his urine.

Physical examination revealed an undernourished young adult, drowsy and stuporous, poorly oriented and ataxic, but thoroughly cooperative in everything which he was asked to do. Neurologic examination showed no disturbance of cutaneous or deep sensibility. Apart from a peripheral type of weakness of the right side of the face and a bilateral ptosis, there was no muscular weakness. The deep tendon reflexes were active and equal. Babinski's test was negative. He showed an ataxic gait and was incoördinate (+ 2) on finger-nose and heel-knee tests. Romberg test was positive. Pupils were small and inactive (— 4) to light. Convergence was poor (— 3), as were upward and downward movements of the eyes. Fundoscopic examination showed the disks to be hyperemic with blurring of the nasal margins and slight engorgement of the veins. The visual fields showed a complete right homonymous hemianopsia (Fig. 3). An examination of the spinal fluid showed an increase in the globulin content with a total protein content of 60 milligrams per 100 cubic centimeters of fluid, negative Kolmer reaction, twenty-one small lymphocytes and seventeen large lymphocytes per cubic millimeter of fluid with a zone II colloidal gold curve.

Comment.—The diagnosis of brain tumor seemed quite probable, but from the neurological findings alone its location was equally uncertain. The right homonymous hemianopsia, however, definitely placed the lesion on the left side of the brain behind the chiasma. Later the patient developed three generalized convulsions and died. Autopsy revealed a large, cystic degenerating glioma involving the floor and the lateral wall of the lateral ventricle and extending into the left temporal lobe. (The marked pleocytosis in the spinal fluid is a rather unusual finding in a neoplasm.)

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CASE 2.—The patient, a housewife, aged twenty-eight, was first seen in October 1928, complaining of headache, nausea and vomiting, with diminution in vision. The headaches, which began four years previously, were of a dull aching character, occurred in the left supraorbital region and recurred at irregular intervals, varying from a week to a month. They usually occurred in the morning, lasted all day and were associated with nausea and vomiting. There was a gradual diminution of hearing in the left ear, with recurring attacks of bilateral tinnitus. Two years later she had a "hard" attack of headache with nausea and vomiting which lasted continuously for five days and was associated with marked diminution of her vision. One year before examination she had a second similar "hard" attack, and a third one occurred two weeks previous to examination. The last attack awakened her in the morning with severe aching pain in the left supraorbital region which persisted continuously for twelve days and then disappeared spontaneously. A physician was called who punctured her left frontal sinus with partial relief, but repetition of this procedure had no effect on the pain. Diminution of vision started with the attack and persisted to the time of examination. Four days previous to examination she noticed a twitching and jerking of the muscles of the left side of her face and left arm for a period of about fifteen minutes.

General physical examination failed to reveal any significant findings. Roentgenograms of the head and chest were negative. Urinalysis was negative. Blood count showed: hemoglobin, 80 per cent; red blood cells, 5,140,000; and white blood cells, 11,900. Wassermann reaction of the blood serum was negative. Neurological examination showed no demonstrable

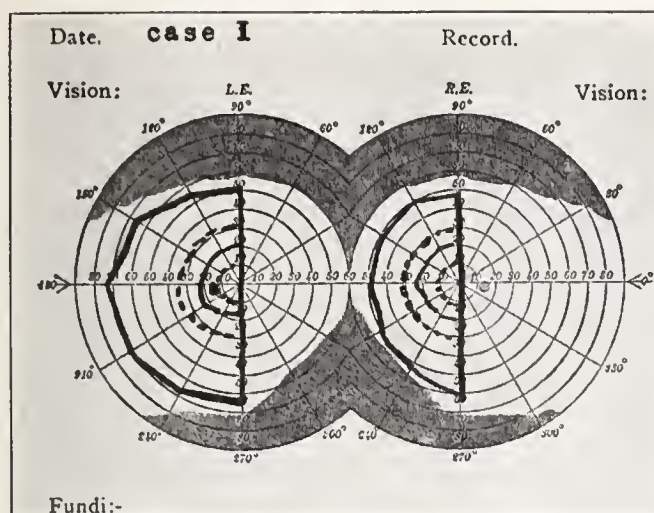


Fig. 3.—Visual field of patient reported in Case 1, showing complete right homonymous hemianopsia.

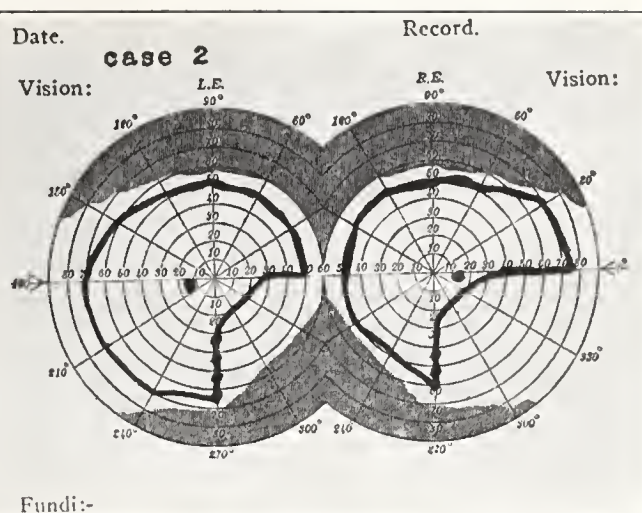


Fig. 4.—Visual field of patient reported in Case 2, showing inferior right quadrant homonymous hemianopsia.

muscular weakness or loss of cutaneous sensibility. The biceps and triceps reflexes were slightly more active on the left than on the right; patellar and Achilles reflexes were equal and active; Babinski reflex was negative. There was slight incoördination on finger-nose and heel-knee test bilaterally. Her gait was slightly ataxic and she had a tendency to lose her equilibrium while standing on one foot. Pupillary reflexes were normal. Ocular movements were good in all directions and there was no nystagmus. Fundoscopic examination showed bilateral acute choked disks, three diopters on the left and two diopters on the right with hemorrhages and exudates. Perimetric examination of the visual fields showed an inferior right quadrant homonymous hemianopsia (Fig. 4).

Comment.—The prolonged history of headache, nausea and vomiting, with a bilateral choking of the disks, presented the classical symptomatology of a brain tumor, but did not localize it. The history of a recent Jacksonian type of convulsion, involving the left side of the face and left arm, suggested a lesion in the right motor cortex. Neurological examination, however, did not show any demonstrable weakness of these muscles and there was not sufficient variation in the reflexes to be of any diagnostic value. The only finding of localizing value, therefore, was the right quadrantal hemianopsia which placed the lesion on the left side of the brain. Accordingly a diagnosis of left temporal lobe lesion was made. Exploration revealed a tense and bulging dura. A puncture needle was inserted and five cubic centimeters of a typical, yellow, gliomatous fluid was aspirated. The needle was reinserted in a backward direction and an ounce of darker fluid was obtained. After evacuation of the cyst the brain collapsed and there was no further evidence of tension on the dura. The operation was completed as a decompression. Following surgery, the patient improved temporarily, but when last heard from was rapidly failing.

CASE 3.—This patient was first seen in October 1928, on account of headache, nausea and vomiting. The headaches started rather abruptly in May 1928, coming on in the early morning, occurring in the frontal regions and consisting of sharp shooting pains which radiated back over the right temporal area into the occiput and neck. The headaches were fairly con-

stant in character, of moderate severity, and occurred almost daily. At the same time the patient noted periods of vertigo and on a few occasions she had fallen. In August 1928, nausea and vomiting began. Diplopia occurred about the same time and for three weeks before examination she was troubled with visual hallucinations in which she saw small animals such as squirrels, ducks, and cats on people's clothing as they approached her, as well as numerous colored (green, yellow, and blue) beads and flowers. During these three weeks there was also present incoördination and weakness of the muscles of the left hand and arm.

Physical examination revealed a poorly nourished woman of forty-five years of age who had a slight paresis of the whole left side of her body, including a weakness of the left side of her face. There were no disturbances of superficial or deep sensibility. There was a slight increase in the deep tendon reflexes on the left side with normal plantar reflex bilaterally. There was slight (grade I) incoördination in the left arm and leg, and her gait was ataxic.

Eye examination revealed large, evenly dilated pupils which did not react to light or accommodation. There was difficulty in moving the eyes upward and a marked bilateral nystagmus. Examination of the fundi showed a bilateral papilledema of four diopters with numerous linear hemorrhages and a complete left homonymous hemianopsia.

Comment.—Localization in this case was not so difficult as in the two previous ones. The left homonymous hemianopsia and the left motor weakness both pointed to a lesion of the right temporoparietal area. A decompression was done, exposing the dura over this region. The dura was not under any great degree of tension, but an exploring needle failed to reach the lateral ventricle. A definite resistance was encountered about three and one-half centimeters posterior to the rolandic area and about five centimeters below the surface of the cortex. Material removed for diagnosis proved to be choroid plexus. Operation was completed as a decompression.

The patient had a very stormy convalescence and died about five months later. Autopsy was not done.

CASE 4.—A retired watchmaker, forty-eight years of age, was first seen in November 1929 at the County Hospital, having been sent there from the Psycho-

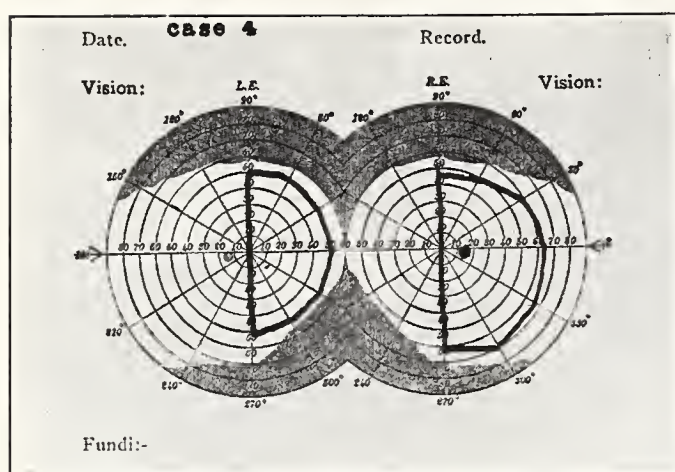


Fig. 5.—Visual field of patient reported in Case 4, showing complete left homonymous hemianopsia.

pathic Hospital to which he had gone on account of a definite personality change, associated with severe headaches and loss of vision.

Severe bifrontal headaches began rather suddenly in March 1929. These would come on at any time and usually lasted about twelve hours; for the past three weeks they had been associated with nausea and vomiting. For the past year the patient had been fatigued and tired out and would lie down and sleep for hours at a time. There occurred a definite character change and he became very self-centered, introspective, depressed, and gloomy. His vision had been poor for the past thirteen years and he was forced to give up his work as a watchmaker. Following a generalized convulsion nine years previously, the patient had occasionally noticed a revolving fan above his forehead. This hallucination was not present all the time, but had been much more prominent and persistent during the four weeks previous to examination. Ever since this convulsion he had been subject to falling spells which would come on suddenly at any time, without an aura, and were unaccompanied by any of the tonic, clonic or involuntary muscular movements common to epilepsy. On a few occasions he had noticed what seemed to be slight uncinat attacks.

Eleven years previously the patient had had a moderately severe case of pulmonary tuberculosis and spent two years in a sanatorium; the disease had then been pronounced arrested.

General physical examination revealed a thin undernourished adult male suffering severely from pain in the head but clearly oriented, of good mentality and perfectly coöperative. He had a moderate degree of dental and tonsillar sepsis; the chest showed some fibrotic changes in both apices characteristic of a tuberculous process of long standing. The heart findings were normal, and his blood pressure measured 114/78 millimeters of mercury. The blood count showed a slight secondary anemia with a 12,000 leukocyte count. Neurological examination showed no demonstrable muscular or sensory disturbances. The deep tendon reflexes in the upper extremities were slightly more active on the right than on the left. The knee and Achilles reflexes were hyperactive, plus three, bilaterally. There was a positive Oppenheim and Mendel-Bechterew reflex on the left and a positive Gordon reflex on the right. There was an incoördination on performing complicated movements with the right hand, but the left appeared normal. He presented a strongly positive Romberg and his gait was markedly ataxic. Eye examination showed the pupils to be slightly dilated, but they reacted promptly to light and accommodation. Ocular movements showed a paralysis of the left external rectus, but there was no nystagmus. Fundoscopic examination showed a bilateral acute choked disk of five to six diopters with

numerous hemorrhages and exudates and a complete left homonymous hemianopsia (Fig. 5).

Comment.—The headache, nausea, and vomiting, with choked disk confirmed the diagnosis of brain tumor, but the reflex changes were variable and inadequate to localize the lesion. The convulsive seizure and the uncinat attacks both pointed to temporal lobe involvement, but the left homonymous field defect localized the pathology on the right side of the brain.

A right subtemporal decompression showed the dura under marked tension with bulging and flattening of the cerebral convolutions. An exploratory needle failed to enter the lateral ventricle, but encountered a firm resistance deep in the posterior portion of the temporal lobe. Considerable bleeding was encountered and the wound closed as a decompression. Deep x-ray therapy was given, but the patient later died.

Autopsy revealed a degenerating cystic glioma deep in the posterior part of the temporal lobe and coming to the surface on the tentorium cerebelli (Fig. 6).

GENERAL SYMPTOMATOLOGY

Uncinat Attacks.—Ever since the time of Hughlings Jackson's original description of these peculiar uncinat attacks and the convulsive seizures that bear his name they have been considered evidence of temporal lobe pathology; judging from Cushing's series and from the cases reported here, however, they are much less frequent than are field defects. However, when they do occur they are a very significant finding, pointing to involvement of the temporal lobes although in themselves they do not distinguish which lobe is affected.



Fig. 6.—Degenerating cystic glioma found at autopsy in posterior portion of left temporal lobe of patient reported in Case 4.

Visual Hallucinations.—Visual hallucinations are very interesting and complicated phenomena and are usually considered a part of some such mental aberration as is seen in dementia praecox; on the other hand, however, they may be associated with such definite pathology as a tumor. These visual pictures may be nothing more than spots or bright lights or they may assume very clearly defined and vivid pictures that are presented time and again to the patient. Good examples of the latter are those found in the last two cases here presented. One patient (Case 3) saw little animals, flowers, and gayly colored beads, while the other (Case 4) saw very distinctly a fan revolving above his forehead off and on for a period of nine years previous to his present illness. He also had some type of uncinat attack, but these were poorly described and of an indefinite nature.

Inasmuch as the occipital cortex is regarded as the seat of our visual impressions, one would expect that such clear-cut and distinct pictures would point to occipital lobe involvement. This, however, is not necessarily true, as shown by the two cases here reported and by the fact that thirteen out of Cushing's series of fifty-nine cases of temporal lobe tumors presented visual hallucinations of a clearly defined nature. It is probable that any irritation of the visual fibers is transferred to the occipital lobe where it is interpreted or registered as a definite picture in much the same manner that a man will experience subjective sensations in his toes long after his leg has been amputated.

Convulsive Seizures.—Generalized convulsive seizures occurred in the patient reported in Case 1 just prior to his death. The slight Jacksonian convulsion in the second patient (Case 2), involving the left arm and face, remains unexplained and only served to confuse the diagnosis further. In Case 4 the patient had had one generalized epileptic type of seizure nine years previous to examination and this was followed by recurring falling spells in which he did not lose consciousness or have any muscular spasms. In general, convulsive seizures played a very small part in furthering the diagnosis of any of these cases.

CONCLUSIONS

1. The histories and physical findings in four cases of temporal lobe tumors have been studied and reported.

2. Localization of the lesion was possible in three cases by the field defects alone, neurological examination being inadequate. In the fourth case the tumor was sufficiently large to involve both temporal and parietal lobes, thus producing both field defects and positive neurological findings.

3. Clear-cut and vivid hallucinations do occur in temporal lobe pathology, as shown by two cases in this series.

4. Convulsive seizures, uncinat attacks and petit mal attacks, long regarded as characteristic symptoms of temporal lobe pathology, were infrequent or absent.

Rees-Stealy Clinic.

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DISCUSSION

HOWARD W. FLEMING, M. D. (384 Post Street, San Francisco).—Doctor Cave's paper emphasizes a most important and often neglected diagnostic procedure. Perimetry is time-consuming, but does not need elaborate apparatus or special training. Simple methods will reveal all gross field defects and, occasionally, such defects are the only signs of localizing value. The case reports given by Doctor Cave illustrate the value of perimetry in temporal lobe tumors. Gross lesions involving the visual tracts in the parietal and occipital lobes often give visual field signs of equal value, although they are substantiated more frequently by other symptoms and signs. Normal fields, in a patient with definite signs of increased intracranial pressure, are of great value from a negative standpoint, for the absence of defects in the fields of vision may localize a cerebral lesion to the frontal lobe or differentiate between pathologic change in the cerebrum and that in the cerebellum.

There are gross lesions of the brain, and particularly of the temporal lobe, other than tumors, in which perimetry may be very helpful. I refer especially to abscess and subcortical hemorrhage. The differential diagnosis between abscess of the temporal lobe and cerebral abscess is not always easy. If the patient is at all able to cooperate, repeated testing of the fields of vision may aid in an early localization of the pathologic changes. The enlargement of an abscess or tumor frequently can be estimated by the changes in the visual fields. Decrease in visual field defects is a valuable prognostic aid in cerebral abscess.

The case reports given in this paper illustrate the chronicity occasionally seen in brain tumors. The second patient gave a history of symptoms dating back at least four years. The patient cited in Case 4 very probably had been having symptoms referable to his tumor for at least thirteen years. These patients if seen soon after the onset of symptoms no doubt would have been diagnosed as cases of idiopathic epilepsy.

The medical profession is quite familiar with the classical signs of chronic intracranial pressure, *i. e.*, choked disc, nausea, vomiting, and headache. However, as our diagnostic ability improves, it will be just as reprehensible to delay diagnosis until the onset of this syndrome as it is at the present time to await abscess and peritonitis before diagnosing acute appendicitis. More and more tumors are being diagnosed and localized before marked intracranial pressure supervenes. Unexplained convulsions warrant the most thorough investigation, including encephalography or pneumoventriculography.

The fatal outcome of the four cases reported in this paper would seem to confirm a common impression regarding brain tumors. Though it is true that, as a group, gliomas do not offer so good a prognosis as do endotheliomas, they are not the entirely hopeless lesions they formerly were believed to be. Recent work by Cushing, Bailey, Penfield, and others, has emphasized that gliomas range from the most malignant to the benign. It is no longer sufficient to tap a cyst

and be content with a decompression. Particularly in the slow-growing tumors, removal of the mural tumor mass will effect a remission of many years, if not a permanent cure.

Doctor Cave has presented a most interesting and opportune reminder of the symptoms and signs of temporal lobe lesions. A visualization of the optic tracts and the use of perimetry in obscure head cases will assist materially in an early and correct diagnosis.



CARL W. RAND, M. D. (534 Pacific Mutual Building, Los Angeles).—The importance of routine perimetric studies in all cases of suspected brain tumor is to be emphasized. Negative, as well as positive, findings are of value. In temporal lobe lesions a notching of the homonymous color fields is found much earlier than a constriction in the form field proper. Often it is not only the earliest, but the only localizing sign we have, especially if the lesion is in the right temporal lobe. Frequent perimetric studies will often indicate the increasing size of the lesion until a complete homonymous hemianopsia may be reached. Usually signs of pyramidal tract involvement appear relatively early which, together with uncinate gyrus attacks, sometimes clinch the diagnosis. I have been impressed with the character of visual hallucinations found in several patients with temporal lobe tumors. These were very vivid, always in the blind field, and so discrete that the patient would point to them and describe them. One described a yellow canary bird, a second a blue cup and saucer, and a third blue and red barnacles on the bottom of a ship. Occipital lobe hallucinations, on the contrary, are usually more bizarre. They may take color or light forms in the blind field, but seldom assume the figures of animals, people, or other objects. In temporal lobe hallucinations the object may or may not be in motion. I believe these hallucinatory objects are almost always something with which the patient has been familiar in his past experience. Careful leading questions may be necessary to bring out a history of visual hallucinations, as they may be infrequent and fleeting early in the disease, and the patient may not place any importance on them unless his attention is directed to them.

SOME PROBLEMS IN MEDICAL ECONOMICS*

By CARL R. HOWSON, M. D.
Los Angeles

IT is a wise custom which prompts us at the close of the year to take stock of our accomplishments during the preceding twelve months, to see how far we have advanced and to look at what lies ahead of us.

During the past year your Board of Councilors has held one informal meeting, two special meetings, and eleven regular meetings for the transaction of business. With the increase in association members in recent years there has come augmentation of work, and on more than one occasion the sessions have continued until close to midnight. Much of a constructive nature has been accomplished. I desire especially to mention the work of your committees, whose reports you have heard tonight. Without their generous and efficient aid it would be quite impossible for your board to accomplish its aims. To the Board of Trustees, the Board of Councilors, and the various committees, the thanks of the Association are

due for their untiring efforts on behalf of the common weal.

I desire at this time to express my appreciation of the constructive work and coöperation of my fellow officers, and also of the opportunity which has been afforded me of serving you during the past year.

In the main the work has been pleasant, and I shall long cherish the memory of the most enjoyable associations which have fallen to my lot in the Council and elsewhere. It is a source of great satisfaction to give place to a successor of such high ability and standing, and having such unanimous support, as Doctor Molony, for whom I prophesy the greatest year in the history of the Association.

For an organization of this type to function to its full efficiency it is necessary that it be permeated by a spirit of fraternalism, of service to the common cause, of willingness to work and to sacrifice, if necessary, for our best interests, realizing that so long as we preserve our ideals our best interests will be indissolubly tied up with the interests of the commonwealth. To this end all our activities should be coördinated.

The changing conditions of the past few years have made desirable certain changes in our by-laws, particularly in those sections relating to initiation fees, to the telephone exchange, to the terms of office of councilors, and to the regulations governing the election of officers.

One year ago certain amendments to the by-laws were submitted to the membership, but in spite of urgent appeals, lack of interest on the part of the members was such that it was not possible to secure the necessary two-thirds majority vote. It is hoped that during the coming year a more complete revision will be undertaken, and, if and when the amendments are submitted to you, I bespeak your interest and prompt vote.

If we are to profit by our opportunities, we must, as individual members of the Association, take sufficient interest to be informed regarding its activities and aims. It is the duty of the officers and councilors to supply as much information to the membership as is practicable. The Bulletin is the medium through which this must come, and, under the able editorship of our secretary, its columns this year have reflected to an increasing degree the appreciation on the part of your officers and boards of their responsibility and opportunity in this respect.

MEDICAL ECONOMICS

In 1924 the secretary of the American Medical Association stated that "the one great outstanding problem before the medical profession today is that involved in the delivery of adequate scientific medical service to all the people, rich and poor, at a cost which can be reasonably met by them in their respective stations in life." How much more is this true today? And to this I would add a second problem—the restoration in the minds of the public of the confidence and respect which were ours a generation ago.

It is stated on the basis of such very superficial surveys as have been made that not over half the population in Southern California patro-

* Address of the retiring president read before the Los Angeles County Medical Association on December 17, 1931.

nize the regular medical profession. This is indeed a lamentable reflection upon both the public and our profession, and particularly the latter, for on examination of the situation we find many factors for which we cannot avoid responsibility.

It is an axiom in the business world that if the public does not properly appreciate the value of a given article or line of merchandise, the public must be educated. The manufacturer does not spend his time berating them for their ignorance, or denouncing his competitors and their products. He realizes that if he is to succeed in the face of the keen competition of today he must do certain things. He must maintain the high quality of his product by using the best materials, and by constant research keep improving it, so that with changing conditions and the introduction of other similar products by his competitors he will still be in the lead. He must then inform the public concerning his stock in trade and its superior qualities, which he does by publicity. He must also supply his wares at a price which is reasonable and he must convince the prospective buyer that it is reasonable.

Let us consider how, as producers and purveyors of scientific medical service, we measure up to these requirements.

The many research organizations throughout the civilized world evidence the constant effort to increase our knowledge and render more efficient our fight against disease. The steady stream of reports of laboratory and clinical observations which emanate from our hospitals and clinics shows that progress is not limited to any group. In this respect, therefore, we may fairly claim to be keeping up with the times.

When it comes to delivering the product, however, another factor enters, in a manner and to a degree that the ordinary manufacturer does not have to deal with, *i. e.*, the human element; for our product, much public opinion to the contrary notwithstanding, cannot be delivered as it comes from the laboratory or hospital. It has to go through the hopper of the mind of the individual practitioner, and in many cases the child of science reborn after this experience would quite fail of identification by its own father. It must then be further adapted to the individual patient, and herein lies the *art* of medicine.

LEGITIMATE PUBLICITY IMPORTANT

So far as publicity for our wares is concerned, we must confess to an almost total failure to keep pace with the improvements in the product we have to offer. Scientific medicine has made wondrous progress during the past generation. It has made possible the building of the Panama Canal; it has ridden the tropics of many of their greatest scourges; it has almost rendered extinct that dread pestilence of our fathers and grandfathers, typhoid fever; it has played its part in the reduction of tuberculosis to a mere fraction of what it was within the life span of many of us here, and has made it possible to save many of its victims who formerly would have been doomed, but who under modern treatment are able to live useful and comfortable lives, and in a very high per-

centage of cases are completely restored to health. It has brought new life and hope to the diabetic, to the millions of sufferers from hookworm, to the luetic, and many others; it has pried open many doors and given us access to the mysterious forces that work in the production of rickets, pellagra, beriberi, tetany, and scurvy, and at the same time made possible both prevention and cure. It has given us new means of diagnosis and treatment—instruments such as the bronchoscope and the electrocardiograph, methods such as the determination of basal metabolism and all the refinements of chemical analysis of the body fluids. Many other wonderful things might be mentioned, most of them having dramatic possibilities equal to the wildest fancies of any fiction writer.

The quacks and cultists have spent millions of dollars telling the public of their unscientific so-called discoveries, while the medical profession has stood aside and aloof, with the inevitable result that the public, uninformed or misinformed, has passed us by. We have retreated behind our code of ethics as an excuse, when as a matter of fact it was our own conservatism, lack of foresight and indifference which we were trying to gloss over. At the eleventh hour we are awakening to the serious results of our lethargy, but the awakening, as is usual following deep sleep, is difficult and somewhat disagreeable. Meanwhile the public waits expectantly, beginning dimly to sense the overwhelming heart and life interest connected with our work, which they accuse us, not without justice, of having kept locked within our bosoms while the world hungered and thirsted.

Our Association has this year created a Committee on Publicity. You have heard their report tonight. For nearly six months now we have been broadcasting health talks for fifteen minutes each week over two of the largest radio stations in the city. Many of the articles broadcast have been prepared by our own members, most of them by the Publicity Committee itself. The material supplied by the American Medical Association has been of great assistance. The preparation and editing of these articles has involved more labor than is readily appreciated by one who is not conversant with the work. Within the past few days there has appeared in the Sunday edition of one of our leading dailies the first of a series of articles sponsored by this Association.

For the consummation of the arrangements with the radio stations, for the compilation and preparation of the articles, for the careful editing of the same and the arrangement of the programs, and for the preparation of similar matter for newspaper publication, this committee merits our sincere thanks. To the members who have prepared articles for use by the committee the thanks of the Association are also due. All this has been accomplished without expense to the Association. As evidence of its success, we have recently been approached by two other large radio stations with requests for similar articles which they might use, and the committee is endeavoring to tie in one of these with publicity matter for our State Association.

Such work, so well begun, must be continued and extended in its scope. It will bring returns more than commensurate with the effort and any expense which may be involved.

THE HIGH COST OF ILLNESS

For a number of years the hue and cry about the high cost of medical care has been increasing. Articles appear with growing frequency in lay periodicals with a general tone anything but complimentary to the medical profession. I should like to quote briefly: "In spite of the natural predisposition to confidence in the doctor, and in spite of the general recognition of the altogether miraculous advances in modern skill and knowledge, there is obvious everywhere a growing sense of irritation on the part of the public generally toward present medical practice" (*Harper's Magazine*, November 1930). This from the president of the Academy of Medicine of Northern New Jersey: "Most laymen feel that their own physician is a most trustworthy individual, but, while this is undoubtedly true, my reaction after twenty-five years of practice is that they also feel that all other physicians, and the profession as a whole, bear watching, and that their acts are influenced mostly by selfish motives" (*J. M. Soc., New Jersey*, May 1930). "Medical science is kept constantly up to date, but the organization by which it is applied is way behind the times. . . . I am convinced that medical science travels by airplane in an age of aviation, while medical organization lumbers along in a stage coach. Medical costs cause unrest. . . . I do not think I exaggerate when I say that the high cost of sickness, at least among the middle classes, is as potent a cause of social unrest as poverty among the poor" (E. A. Filene, *Journal of the American Medical Association*, October 19, 1929). A recent writer says: "More extensive medical care we must have. It will be voluntary and coöperative in its organization or it will be bureaucratic. Pure individualism has had its day."

In response to the agitation, Dr. Ray Lyman Wilbur, shortly after his appointment to his present office in the government, called a meeting, the result of which was the creation of the Committee on the Cost of Medical Care, with a five-year program of investigation of all aspects of the subject. This investigation is now at the end of its fourth year. Their studies early showed what other studies had evidenced, that the cost of medical care is but a small part of the cost of illness, between 23 and 30 per cent in fact. Realizing the incalculable harm which was accruing to the medical profession through the subtle propaganda contained in the name of this committee, attempts were made to have it changed to the Committee on the Cost of Illness or some similar title. After about two years' discussion, the committee one year ago met and considered the title, but the only change made was to "Costs" instead of "Cost"! This past year the writer was instrumental in having a resolution on the subject adopted by the Council of the California Medical Association, which was presented to the American Medical Association by our delegates, but in

view of the time which had elapsed since the formation of the committee, no action was taken.

In spite of the drawback of its name, the reports of this committee will undoubtedly prove of inestimable value to the profession.

Analysis of data collected by this committee, and in other investigations, shows that the average cost of illness per family in this country is between \$70 and \$80 per year. Add to this the fact that, while 23 per cent of our national income is spent on pleasures and luxuries, only 3 per cent is expended for illness, and it is at once evident that, statistically at least, our people are not badly off in this respect. (They spend three times as much for tobacco and twice as much for candy as they do for physicians' services.) We must not, however, let the present-day reverence for the law of averages cause us to overlook the essence of the problem, for on further examination we find that it is the unequal distribution of these costs which hurts. About half the expense has to be borne by less than one-fifth the people, and of this half, approximately two-thirds falls on five per cent of the people.

This frequently results in a crushing debt, under which the family struggles for years. In a study of the relations of illness and dependency this statement is made: "Serious illness of either a breadwinner or of the homemaker lowers the family standards of living. This often means moving into a poorer neighborhood, living in a less desirable house with fewer rooms, less light and open space, disposing of some of the better or more salable articles of furniture, and curtailing recreation and variety and supply of food. These are circumstances and conditions which entail danger to physical health, and, even more, tend to break the morale of the family and increase overwhelmingly the sense of failure and inferiority characteristic of dependency." Uncertainty regarding the cost of illness is a great cause of complaint on the part of those whose incomes are in the brackets above \$6000—a very small group numerically, but a very influential one.

We are justly proud of the provision which has been made for the care of the indigent sick. The most modern hospital accommodations and all the resources of scientific medicine are at their service. Can we wonder if the taxpayer, surveying the situation, finds that he is supporting for the nontaxpaying element much better accommodations and service than nine-tenths of his own class can afford when sickness comes into their homes? The fact that this is made possible by the doctors' donation of their services is of no consequence in his thought. Can we blame him for thinking that on the average a taxpayer must be of more value to society than one who has not the ability or character to be self-sustaining, and that, if the state or municipality is going to provide for its citizens, its first responsibility is to those who support it?

ATTEMPTS AT SOLUTION

For various reasons the problem has received attention from political powers in Europe in years past, and at the present time twenty-three coun-

tries have compulsory health insurance, and some fifteen have voluntary systems.

Germany.—The German *kranken-kassen* system was inaugurated in 1883, and at present 32 per cent of the entire population is receiving care under its terms. Under this administration the status of physicians in Germany has steadily declined. Eighty per cent of them are now dependent upon insurance practice. Much of the doctor's time is taken up by paper work, and the medical service is stated to be superficial and unsatisfactory. There has been a great increase in the number of irregular practitioners, which is claimed to be due to the unsatisfactory service rendered by the *kranken-kassen* doctors. The doctors who are most popular and have the largest panels are those who are most generous with disability certificates. The drain on the funds became so severe that in 1926 the supervising commission summoned 1,259,016 unemployed patients for a control examination. Approximately 200,000 did not appear but reported that they have recovered, a similar number appeared and reported that they could go to work again, and nearly 300,000 were examined and found able to resume work. Thus over 700,000 patients, or 56.5 per cent, were found to be able to take up their work at once.

England.—England's system was inaugurated in 1911 in face of the opposition of practically the entire medical profession. At first its administration was very unsatisfactory to the profession, but, little by little, changes have been brought about, until today, while far from being perfect, it is considered fairly satisfactory, and they have expressed themselves as in favor of its extension to the families of the employed. At the present time the doctor receives about \$2.15 per year per person on his panel, and his average fee per visit (office and home, which have been found to be in the proportion of two and one-half to one) is about 50 cents. One must, however, bear in mind the status of the profession prior to 1911. Much of the private practitioner's work then was of the lodge and club variety, and the fees received ranged from 60 cents to \$1.20 per year per person. About 35 per cent of the population comes under the operation of the National Insurance Act. No provision is made for consultations, specialists, or hospital care. Judged by our standards, the service would probably not be considered satisfactory. One man is reported as having seen eighty patients in his office in three hours. A friend of mine tells of having an appointment with a doctor for a certain hour. On reaching his office he found fifteen patients waiting in the reception room, so suggested that he return at a later hour, but was assured that it would not be necessary, for the doctor was usually able to see that many patients in fifteen minutes. Here, as in Germany, there is a great tendency on the part of the patients to claim disability when they do not wish to work at the job which is available, or at any job, with consequent pressure on the doctor to issue disability certificates for very minor ills, "anorexia" being a not uncommon stated cause. This has reached such an extent as to seriously endanger the entire scheme, and steps are now

being taken for closer supervision of the most serious offenders in the professional ranks. Treatment of trifling illnesses has greatly increased the work of the doctors.

HOSPITAL COSTS

Many experiments are being tried in various parts of the country to meet the problem of hospital costs. Time does not permit full discussion of the situation, but mention may be made of the experiment in the Baker Memorial Hospital, part of the Massachusetts General, which is the most striking. Others which have attracted attention are the Bassett Hospital Guild at Cooperstown, N. Y., the Keokuk, Ill., plan, etc.

There is no question that many patients demand much more expensive accommodations than are in keeping with their income or scale of living. Much can be done by the doctors to educate their patients as to the sufficiency of the cheaper accommodations in the average case. Provision by the hospitals of more semi-private rooms and small wards will be necessary before it can be done on any large scale. To insure its wider acceptance also, the hospitals must be prepared to supervise more closely the patients admitted to the wards. Those who are so seriously ill that they disturb the other patients and interfere with their rest must not be allowed in the wards. Many such patients can afford the additional expense of a private room for the few days of acute illness following a major operation, being transferred to the ward as soon as their condition will permit. In other cases the hospital could probably afford to make an exceptionally low rate for the sake of preserving the atmosphere and popularity of the wards.

It is legitimate that the state bear the expense of educating the members of such an essential profession as nursing, and also relieve the hospitals from taxation.

We may hope that in time development of public spirit on the part of our wealthy citizens will result in more substantial endowments for our hospitals that will absorb the expense of free and part-pay care, now distributed among those paying full rates.

NURSING SERVICE

The development of group nursing offers a means of reducing costs. The system recently inaugurated by one of our local hospitals of employing special nurses on salary seems to be a step forward. By assuring the nurse of regular employment, with proper provision for recreation and recuperation after unusually difficult cases, a considerable saving to the patient should be possible. The development of visiting nursing should be encouraged by the profession of every community. We hope to see this in Los Angeles very soon.

HIGH COST OF MEDICAL CARE

Various attempts at a solution of high medical costs for the middle class have been tried in this country. We have had lodge practice with all its vicious elements. The railroads have been supplying care to their employees for many years, and on the whole very successfully. Other large corporations have undertaken it. One of the best

examples of reasonably good service at low cost is the plan of the Endicott-Johnson Shoe Company, which takes care of its fifteen thousand employees and their families at a very low annual cost. (It may be noted in passing that this cost is very considerably in excess of that under which the three largest local groups referred to in the next paragraph operate.) Many large corporations have taken out group insurance with standard old-line companies, under the terms of which the employees are provided with medical and hospital care, a small death benefit, and in some cases disability benefit. The insurance company then contracts with physicians to supply the care at a stipulated fee, according to the work done, or at a flat rate per year. The General Motors Corporation with its 150,000 employees, the Chrysler Corporation, and a few of our own large corporations are handling the situation in this manner.

CLINICS

In Los Angeles we have recently seen the development of group clinics which are taking care of large aggregations, the members of which pay into a fund a stated sum per month. From this fund the doctors are paid. Collections may be made from the prospective patients by the doctor directly, or there may be an intermediate organization. In the latter case the doctors may be paid a flat rate per month or for the actual work performed in accordance with a fee schedule.

Quite recently we have seen the extension of the group plan to individuals, the publicity being obtained through a working arrangement with one of the newspapers.

Part-pay clinics have been sponsored by hospitals and philanthropic organizations. In too many of these and other similar private clinics and dispensaries the work is still expected to be performed by the physician without remuneration. With the increasing complexity of medical practice, there is everywhere manifest an increasing tendency to lower the bars and admit to these clinics patients with incomes considerably in excess of those formerly classed as indigents. It requires no great effort of the imagination to conceive of the development of clinics, supported by philanthropic individuals or organizations, and ministering to the middle or upper middle classes, with insistence that the doctors provide the service without remuneration. It would perhaps be only natural for the donors to such organizations to feel that the least the organization could do for them would be to relieve them of responsibility for the medical care of their domestic employees. From a humanitarian standpoint we cannot fail to sympathize with the suffering, both physical and economic, of the former class, but we could scarcely be expected to support by our time and effort any plan which would not consider the doctor as worthy of his hire so far as this class is concerned, and most assuredly in regard to the second-mentioned class. We can conceive of no such demand being made upon the members of any other profession. In the conduct of all these clinic arrangements, should not the doctors, who, to quote the words of a recent speaker in our midst, make up the warp and woof of the

scheme, have a determining voice in regard to the conditions under which they shall render such services, and to whom?

FEE SCHEDULE

Recent moves in the direction of the application of the Industrial Accident fee schedule to the practice of medicine, as distinct from surgery, also merit our attention. Certainly it was never the intention of the profession that this schedule should be extended to include such work.

The great bulk of industrial accident work consists of minor surgical treatments. The determination of the status and progress of such conditions is usually simply a matter of observation of the lesion, the change of dressing being done by the nurse or other assistant. It is not so with medical conditions, for the patient must be questioned, and frequently a partial physical examination made, and the time so consumed must be measured in multiples of the time of the minor surgical attention.

Not even the most enthusiastic industrial surgeon will claim there is any profit to the physician in house calls for the fees allowed in this schedule. Obviously he will make such only in the hope of being able to secure work of the more lucrative type. As such visits make up a very appreciable part of the work of the general practitioner, the deficit must be made up, to a great extent at least, by surgery. Under the most favorable conditions the medical practitioner is confronted with many temptations to step aside from the narrow path of rectitude and honesty, and the urge to unnecessary surgery under such conditions must inevitably be so strong that the organized profession cannot ignore the situation thus developed.

FINANCIAL ARRANGEMENTS

In all the chaos and confusion one point stands out—provision must be made which will enable the individual and the family to budget expenses for sickness. At present the person who saves in advance for illness is so rare as to be almost a curiosity. Thanks to the high pressure salesmanship and instalment-selling of modern industry, the income of the average individual has been budgeted for him far into the future, and budgeted so thoroughly and completely that there is rarely any money left for unexpected expenses. We cannot tell the people how they shall spend their money, and some means must be provided whereby they can make provision for sickness on a basis of weekly or monthly payments. It is further necessary that such payments be made into a central fund, and that such fund be contributed to by a large group, so that the costs may be averaged and thus not fall with undue weight on any individual. For this reason insurance policies which pay a stated sum cannot be considered as affording other than a partial solution of the difficulty. To a certain extent the same criticism applies to some of the arrangements which have been made with group clinics, because of the limitations placed upon the type of diseases treated and the extent of hospital care.

The advisability of the medical profession handling this fund is open to serious question. It

would be in the nature of a highly speculative investment on the part of a scientific organization. Even the insurance companies, with their highly paid actuaries, find themselves on shifting sands when dealing with this type of business. The safer plan would seem to be to have the group of employees or individuals who are making such arrangements form their own organization for collecting and dispensing the money, and make their own contracts with the hospitals, so that the doctors will be responsible only for the medical care.

It is essential that, in the establishment of any such arrangement, the building up of a reserve fund receive first consideration; otherwise the first unforeseen epidemic will probably bankrupt the fund and perhaps wreck the whole plan.

While we can see no objection to the principle that an individual should make monthly payments into a fund to cover the costs of illness, it is a question just where we should draw the line in regard to limits of incomes below which limit the individual shall be eligible for treatment under group schedules, and above which we should insist on his coming to us as a private patient.

THE METROPOLITAN WATER DISTRICT ARRANGEMENT

During the past year we have made an arrangement with the Metropolitan Water District, the terms of which are no doubt familiar to all of you. The group of employees covered are stated to have an average monthly income of \$175 or a little less. The money is collected by the district from its employees, and the doctor is paid in accordance with a fee schedule agreed upon. The essence of the contract is that no doctor shall be required to do this work unless he so desires, and that the patient shall have entire freedom of choice of his physician from among the members of the Association.

This arrangement is not to be thought of as a cut-rate plan. The fees set forth in the schedule were considered by the committee to be reasonable fees for ordinary attendance upon individuals with incomes such as these average. Special services, complicated and difficult surgical procedures, etc., entitle the physician to special fees.

The 33 1/3 per cent reduction in fees to the patient is one which is made possible by organization and the elimination of uncollectible and slow-pay accounts. The doctors' net receipts are unchanged, and in fact they are probably increased, because there can be no doubt that the patients will have less hesitancy about calling the physician under this arrangement, and that many cases will come to him which would otherwise have to be taken care of at the County Hospital or would have gone to the irregulars.

Our arrangement has attracted wide attention, and is being watched by medical and other interests all over the country. I believe it is a constructive step toward a solution of one phase of the problem.

ADEQUATE CARE

In all our studies we are handicapped by lack of knowledge of what is considered adequate

medical care, and what such care will cost. I believe that only experience will enable us to answer this. We are still undecided whether adequate medical care is what we shall consider as approaching the ideal, whether care equal in quality to that which any given groups are accustomed to receive is to be considered adequate, or if not, to what extent the standard should be raised above that of the accustomed quality. The New York Medical Guild, which was inaugurated by the doctors themselves, has several interesting features. Among others is the provision of a full medical service plan for \$52 per year, and a de luxe service with private hospital room and special nursing, for \$208 per year.

INDIVIDUAL AND GROUP PRACTICE

Much has been said about the necessity for the preservation of the personal relationship between doctor and patient, which is especially difficult in the workings of a large group of physicians. There can be no doubt that this is very essential for some patients, but candor compels us to recognize the fact that there are many people who are not concerned about this phase of medical services, and are quite satisfied to receive attention from any member of a group in which they have confidence.

The people have been educated to expect a higher quality of service from a clinic or group than they receive on an average from the individual physician. We have brought them to this state of mind, and cannot dodge the responsibility for seeing that our clinics do stand for a high standard of medical service.

Individualistic medicine cannot but be wasteful to some extent, and the trend is definitely toward group work.

INSURANCE COMPANIES

We must also note in passing that the entrance of insurance companies into the field cannot be viewed by the profession with equanimity, for it means that the tendency will be to concentrate the work in the hands of a few physicians. As the insurance company can remain in business only by making a profit, its interest lies in keeping the fees paid the doctor as low as possible. I am informed that in computing premiums on this class of work the insurance companies figure their overhead and profits as consuming 45 to 50 per cent, leaving about 50 per cent of the funds paid by the policyholders available for compensation to the doctors, hospitals, etc. Furthermore, as an insurance man recently stated, the doctor must realize that he will be working, not for his patient or for himself, but for the insurance company.

POLITICAL ACTION

The imminence of political action looking to state medicine is much greater than many of us recognize. More and more of the veterans are being taken care of by the government, irrespective of the extent of their war service or the character and origin of their ailments. In one of the counties of this state the requirements for admission to the County Hospital have been lowered by the supervisors to the point where it is

estimated that 80 to 90 per cent of the population are eligible. The chairman of the Board of Supervisors has announced his intention of further liberalizing these requirements.

We must also bear in mind the fact that any scheme inaugurated in this state by political action will in all probability include provision for numerous types of irregular practitioners who are lacking in proper training.

CONCLUSION

In attempting the solution of these problems our conduct must be governed, not by emotion but by reason. Our action must be less obstructive and more constructive than in the past. We must be the leaders, not the led. Now, as never before, organization is vitally necessary for our future, and we must present a united front—not necessarily a battle front, but one based on calm study and on unity, and capable of being converted into a battle front should occasion arise.

711 Merritt Building.

ENVIRONMENTAL ALLERGENS*

WITH SPECIAL REFERENCE TO THEIR IMPORTANCE
AND SPECIFICITY

By R. W. LAMSON, M. D.

AND

• VIRGINIA INMAN, B. Sc.†

Los Angeles

DISCUSSION by Albert H. Rowe, M. D., Oakland; S. H. Hurwitz, M. D., San Francisco; Edward Matzger, M. D., San Francisco.

IT is a rather common observation that some allergic individuals have respiratory symptoms in certain houses and not in others. A change from the unfavorable environment often results in complete alleviation of symptoms; and if the distance moved is significant the climate is probably given credit for the improvement. If the distance moved is but a few yards—such as to another apartment in the same building or across the street—it is more difficult to attribute the relief to altitude or weather conditions. Such patients may or may not react to the usual stock allergens, and if reactions are obtained they seldom explain the phenomena just described. The most logical approach to such a problem is to study the environment. Since the work of Cooke¹ considerable interest has been aroused in the part played by house dust. A thorough study of the environment, however, may require attention to a wide variety of substances such as epidermal structures from pets, pillows, furs, wool blankets, etc., and house dust from rugs, furniture, or draperies. Even though negative to stock allergens some individuals may react to an extract of substances from their immediate environment. That the reaction alone does not prove etiologic relationship of the dust to the patient's condition, we shall try to point out below.

* A majority of the patients used in this study were from the Allergy Clinic, Los Angeles County General Hospital, Unit No. 1.

† Formerly acting head nurse in the above clinic.

HOUSE DUST A COMPLICATED MIXTURE

House dust is a very complicated mixture, and may be contaminated by pollens or some of the epidermal structures mentioned above. On the other hand, the rug or furniture may actually be composed of material which specifically irritates the patient. One school of workers believes that the activity of house dust is dependent upon the bacteria, molds, and yeasts which it may contain. We are inclined to minimize the importance of bacteria as the source of the active substance in house dust extracts. In this connection it must be remembered that the literature contains reports of hundreds of negative, and but few positive, skin reactions to bacterial extracts. In fact, it seems that allergists are agreed on one point, namely, that tests with such extracts seldom give significant reactions. A few reports² of skin reactions with extracts of molds have appeared in the past few years. A careful study has recently been reported by Hopkins et al.³ These workers isolated a species of *Alternaria* from an environment known to precipitate attacks of asthma in their patient. They were able to induce asthmatic attacks by permitting the patient to inhale a powder made from the "mat" or a spray from a broth culture. Intradermal tests with an extract of this fungus were strongly positive on the patient and on areas of the skin of a normal subject that had been passively sensitized with the patient's serum. Their experiments were carefully controlled and they are to be complimented on not drawing too sweeping conclusions from the single case studied. It would seem that this article deserves more serious consideration than any previous one on the subject. Again it should be emphasized that the failure to trace, to some extrinsic source, the irritating substance in any environmental allergen may be "due to an insufficiently exhaustive search."⁴

Stock extracts of house dust may produce skin reactions.⁵—often on a patient far removed from the source of this dust. Van Leeuwen⁶ states that 80 per cent of his asthmatics react to stock "climatic allergens" and that all the dust specimens from private houses in Sweden, Germany, Austria, Poland, Italy, France, England, and Holland gave reactions on his patients. Rackemann⁷ obtained positive reactions in 36 per cent of all asthmatics. Hopkins³ gives other references to similar findings. If reactions to stock or irrelevant environmental allergens can be shown to occur on the majority of the patients tested, then they would have little significance in the individual case. The Council on Pharmacy and Chemistry is to be commended for refusing to accept⁸ for "New and Nonofficial Remedies" such irrelevant substances as stock house and stock street dust.

ALLERGENS USED IN THIS STUDY

The environmental allergens used in this study were obtained in the homes of private patients. The source and possible relation of these substances to the particular patient exposed to them is discussed below. We have tried to determine whether extrinsic allergens contaminated them.

TABLE 1.—Skin Reactions on Clinic Patients to Irrelevant Environmental Allergens

Pt's. No.	Age in Years	Sex	Diagnoses	Sensitivities	Environmental Allergens						
					A	B	C	D	E	F	G
1	24	M	Dys. R.	Epidermals	4	4	..	..	4	4	..
2	22	F	VMR	Epidermals, food, pollen (Sp. & F.)	4	4	..	..	..	2	..
3	15	M	H-F	Epidermals, pollen (Sp. & F.)	..	3	..	..	3	3	..
4	26	F	VMR, A	Epidermals, orris root	..	..	..	..	..	3	..
5	28	M	VMR, Dys, U.	Epidermals, orris root, fall pollen	4	4	..	..	4	..	..
6	33	F	A, H-F.	Epidermals, pollen	..	..	..	..	4	..	4
7	35	F	R.	Epidermals	..	..	..	..	..	..	3
8	38	F	A.	Pollens (Sp. & F.)	..	2	2	4	..	..	..
9	16	M	A.	Pollens (F.)	..	..	..	3	..	..	..
10	30	F	H-F.	Pollens (Sp. & F.)	..	..	..	3	..	..	..
11	19	F	H-F.	Pollens (Sp. & F.)	..	3	..	..	4	..	..
12	40	F	A, R.	Pollens (Sp. & F.)	2	2	..	3	..	3	..
13	18	F	VMR	Pollens (F.)	..	..	..	..	2	..	3
14	38	F	A.	Pollens (F.)	3	..	3	4	..	..	..
15	60	M	Dys, D.	Pollens (Sp. & F.), orris root	3	..	..	..	..	..	..
16*	21	F	D, R, Obs.	Orris root	..	..	..	..	4	..	4
17	15	M	A.	None	3	..	3	4	..	..	..
18	41	M	Dys.	None	2	..	..	3	..	..	..
19	48	M	Dys, (H.)	None	..	..	..	3	..	..	..
20	31	F	E, R.	None	3	..	..	4	..	..	..
21	32	M	A, R.	None	..	..	..	3	..	..	..
22	21	F	R.	None	..	..	..	..	3	..	..
23	31	M	Dys, R.	None	..	..	..	..	..	..	4
24	31	M	A, G-I.	None	..	..	..	..	..	..	4
Total patients positive to environmental allergens.....					7	5	2	10	7	4	6
Total patients negative to environmental allergens but positive to stock extracts...					14	16	10	6	25	26	10
Total patients negative to environmental allergens and negative to stock extracts....					20	23	21	17	23	34	23
Total patients tested to each special allergen.....					41	44	33	33	55	64	39
Per cent of these totals giving significant positive reactions.....					17	11	6	33	13	6	15

* Negro.
Note: Allergens B, E, F and G represent epidermal structures. The greater number of the reactions to the first three of these and to dust "A," which probably contained dog dandruff, were obtained on patients sensitive to stock epidermals. This further emphasizes the specificity of these tests. See text for key letters.

Each one reported in this study gave a positive reaction on the individual who had been exposed to it. The possible significance of such reactions is pointed out. In an effort to determine the degree of specificity of these extracts they were tested on a large series of clinic patients. It is practically certain that none of these patients had ever before contacted these substances, and it would seem far-fetched to assume that identical irritants were present in their own environment. An attempt has been made to correlate the skin reaction, especially in the clinic patients, with the possible presence of contaminating substances (pollens, epidermals, etc.), to which they may be sensitive.

DESCRIPTION OF SPECIMENS

Each environmental allergen has been given a key letter in the following paragraphs and in the table.

Specimen "A."—Rug dust, probably containing dog dandruff, from home of O. J. E., a white male, aged forty-three years, who complained of dyspnea, wheezing, sneezing, itching of eyes and injection of conjunctivae. He has had wheezing during the past fifteen years and has been subject to severe bronchitis since a child. His attacks were not seasonal and were usually worse in the daytime. For many years he has been a pastry cook and he has suspected that wheat flour aggravated his condition. A strongly positive reaction was obtained to wheat, by scratch as well as by intradermal test; moderate skin sensitivity was demonstrated to spring pollen and to rabbit dandruff. The dust specimen was collected in January, but in this climate that does not exclude the presence of some pollen; he owned several dogs, so their dandruff undoubtedly contaminated the specimen. A suspicious reaction was obtained to the extract made from his dog's hair and a definite reaction to the extract of rug dust.

Specimen "B."—Feathers from pillow used by A. H., a white male, aged twenty-nine years, who complained of frequent "colds" in his head and attacks of hives. For several months urticaria was present practically every day and was always worse at night. Between the ages of fourteen and sixteen years he frequently had sick headaches (migraine?). These were so severe that he was unable to go to school during the attack. His family history is interesting in that his mother had migraine and urticaria. Allergic tests to foods were entirely negative, but he gave definite intracutaneous reactions to all epidermals, and a strongly positive one to the extract of feathers from his pillow. He had very satisfactory relief from urticaria after eliminating feather pillows and by the use of Rowe's⁹ diets.

Specimens "C" and "D."—Rug and furniture dust, respectively, obtained from the home of D. N., a white male, aged thirteen years. His complaints were: wheezing, nasal obstruction, and sneezing. His condition seemed to be worse during damp weather, though he was relieved at the beach. He has spent several periods of from three to eight months in an outdoor camp about twenty miles from his home and has never had any of the above symptoms while at this camp, irrespective of the kind of weather. Symptoms recurred shortly after his return home. He had no pets and he slept on a feather pillow at camp as well as at home, so epidermal structures did not appear to be the exciting factor in his home environment. In order to further test this observation he was sent, during an attack, to live with his sister a short distance from his own home. There was no significant change of climate, altitude, or food. He recovered from the attack in two days and remained free for the remainder of the two weeks' visit. Symptoms returned within a few hours after he went home. "C" represents dust from the dining-room rug, and "D" is from overstuffed furniture in his home. The dusts were collected in November 1928 and undoubtedly contained fall pollens, including Bermuda grass. A four plus intradermal reaction was obtained to "C," and specimen "D" gave a three plus scratch and a marked four plus intradermal reaction. He

failed to react to any stock allergen. It would seem that these observations establish the etiologic importance of house dusts in his case.

Specimen "E."—Feathers from pillow. M. K., white male, aged thirty years, had a sudden return of the asthmatic syndrome—the first for two years. At the age of six to eight years he began to have hay fever and asthma; this was worse in spring and summer. For several years the attacks have not been seasonal and have recurred only at long intervals. He has suspected epidermal structures and believes this last attack to be caused by a small rabbit which had just been given his child. He was markedly skin sensitive by intracutaneous test to all stock epidermals and to several spring and summer pollens. Rabbit hair gave a four plus reaction by scratch. The extract of feathers from his pillow was positive by the intracutaneous test. Treatment of this case was limited to excluding rabbit and feather dandruff from his environment. In spite of the reactions to pollens, he was not treated with these extracts because it was felt that he would again become symptom-free after removing the evident cause of this attack. This assumption has been amply supported by the fact that he has been practically free from symptoms for more than twelve months.

Specimen "F."—Dog dandruff. R. R., a white male, aged thirty-three years, complained of symptoms typical of hay fever and asthma. He had spring hay fever, though nasal symptoms would appear at any time when he contacted horse dandruff. His occupation—teaching natural sciences—brought him in contact with epidermal structures from a wide variety of animals; in addition he had a small menagerie at home. He was strongly positive, by the dermal method, to the most important spring and fall pollens and to several foods. Wheat, egg white and yolk, orris root, and most of the epidermals gave him a four plus intracutaneous reaction. His dog's dandruff (specimen "F") and an extract of feathers from a parrot in his office gave positive reactions.

Specimen "G."—Feathers from pillow used by R. M., a Mexican boy, aged ten years. He complained of frequent "colds" in chest, wheezing, dyspnea, and some itching of the eyes. Except for feather pillows he had no known contact with epidermal structures. He failed to react to pollen and foods. Strongly positive, intracutaneous reactions were twice obtained to dog and rabbit dandruff. The reaction to stock feather extract was suspicious on two examinations and that from his pillow was definitely positive.

METHODS

The solutions used in this study were prepared by extracting the material in phosphate buffer mixture, containing 0.5 per cent phenol, for a period of forty-eight to seventy-two hours, and filtering through a Seitz filter. The filtrate—a clear, sterile solution—was tested by the scratch and then by the intracutaneous method. We attached little significance to the reactions unless they were typical—urticaria-like with pseudopods, etc.—such as one obtains to pollens in a sensitive patient. It has been stated⁷ that such reactions are not the rule; any other reaction may be only the response of the skin to a nonspecific irritant. It is well known that such extracts seldom give positive reactions by the scratch method and this has given rise to the assumption that those obtained by the intradermal tests are nonspecific. Methods have been devised¹⁰ for concentrating house dust extracts and such concentrated material has given positive reactions by the scratch test. In view of the fact that the patients are expected to pay for all procedures carried

out in their behalf, complicated methods are hardly justified unless they have marked superiority over the simpler procedures.

KEY LETTER INTERPRETATIONS OF TABLE 1

In Table 1, all the diagnoses have been indicated by key letters and these are explained below. An attempt has been made to distinguish between conditions that may have similar presenting symptoms. For example, not every patient who complains of wheezing has true bronchial asthma, and the individual who "catches cold" when exposed to a draft probably has a vasomotor instability which may or may not be associated with a sensitivity to pollen or other allergen. Key letter interpretations in Table 1 are as follows:

"Dys"—Paroxysmal dyspnea, not entirely typical of bronchial asthma. If followed by "H" it suggests the possibility that the dyspnea may be due, in whole or in part, to cardiac dysfunction.

"A"—Bronchial asthma.

"R"—Rhinitis; complaint may be frequent "colds"—not typical of hay-fever, etc.

"VMR"—Vasomotor rhinitis; evidence of marked instability of the vasomotor apparatus of the nose.

"H-F"—Hay-fever, pollinosis.

"G-I"—Abdominal or gastro-intestinal allergy.

"D"—Dermatitis (type ?).

"E"—Eczema.

"U"—Urticaria.

"Obs"—Obesity.

The degree of reaction to each allergen has been indicated by the figures usually employed, namely, 2, 3, or 4, the last mentioned indicating the strongest, while "2" indicates a suspicious, though probably negative, reaction.

COMMENT

One hundred and five clinic patients were used in this study. Only those reacting to one or more of these special allergens are described in detail. The summary at the bottom of the table may enable one to visualize all the results obtained. The patients represented all ages from adolescence to the fifth or sixth decade. Several races, and a wide variety of allergic and possible allergic conditions are covered in the series. Patients 1, 2, 5, 9, 10, and 14 are Mexicans. All are sensitive to stock extracts as well as to the special ones under study. Most of these individuals have asthma or hay fever, or both. This is not in accord with the early observations of Phillips,¹¹ who stated, "I have never seen a Mexican with hay fever or pollen asthma."

From 6 to 33 per cent of the cases tested gave positive reactions. The furniture dust ("D") reacted on approximately 33 per cent of those tested; of this number about half were sensitive to pollen and the remainder failed to react to any of the commonly used allergens. Eight of the ten reacting (24 per cent of the total tested) complained of dyspnea; several of these probably had true bronchial asthma. This extract is the only

one that in any way approached the findings of Van Leeuwen and the other workers mentioned above. The other dusts ("A" and "C") reacted on 17 and 6 per cent, respectively, of the cases. It is therefore possible that extract "D" contained a nonspecific agent which would account for the greater number of reactions. If so it is not clear why this extract was not active on the several patients who were positive to stock allergens and on the larger number who were negative to all test substances. Our experience would lead us to expect no marked variation in skin response, in sensitive or nonsensitive patients, to nonspecific irritants, including histamin. The possible etiologic significance of this dust in the patient exposed to it has been indicated, though these findings tend to place most emphasis upon the other specimen ("C") from his environment.

In many instances an allergic study is not complete until there has been included a rather detailed investigation of the allergens in the immediate environment of the patient. Additional evidence of the importance of epidermal structures may be obtained by an extract of feathers from the patient's pillow. Extracts "B" and "G" gave strong reactions, while stock feather extracts gave but suspicious reactions in each case. Skin reaction obtained to these special extracts must be interpreted in terms of the particular patient. Clinical trial may be a valuable method of indicating the significance of these reactions. Before one advises a patient to dispose of his furniture—even though he reacted to an extract of the dust—it might be well to see if he would improve on avoiding contact with the suspected articles. When reactions are obtained the relationship to extrinsic substances must be given serious consideration. A patient now under treatment was found strongly positive to house dust by another allergist and treated with such an extract with a fair degree of relief. Subsequent study revealed many reactions to pollens, and treatment with appropriate pollens has given complete relief; house dust was entirely disregarded in this instance.

Our failure to demonstrate skin sensitivity to irrelevant (special) allergens in so large a percentage of these clinic patients, while not in accord with some other authors, may argue for the specificity and significance of (to the original patients) our extracts. Van Leeuwen has shown "that house dust from places known to be good for patients with climatic asthma contains much less allergen than that from places known to be bad." This might permit of at least two conclusions: first, that the climate of Los Angeles is "good" for asthmatics; and second, that the several dusts with which he worked contained material, possibly molds, not found in the environment of the patients I have studied in this and other groups. In any event it does not appear that the use of stock dusts of unknown source and composition would aid in solving the problem.

CONCLUSIONS

1. Extracts of house dust and other environmental allergens may give skin reactions on an

allergic patient whether he be sensitive or non-sensitive to stock allergens.

2. These reactions appear to have a rather high degree of specificity, when one considers the possible contaminating factors such as pollens, epidermals, orris root, molds, and many other substances. There still remains the possibility that a rug or other article actually contains a specific factor not included in the ordinary set of stock allergens.

3. Satisfactory relief may not result until these special irritants are detected and controlled.

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DISCUSSION

ALBERT H. ROWE, M. D. (242 Moss Avenue, Oakland).—The study of the patient with bronchial asthma, perennial hay fever or dermatitis from the point of view of environmental allergens is most important. Doctor Lamson's care in describing the source of each extract which was used in his study is worthy of record. The routine testing of such patients with eight or ten stock house dust extracts frequently indicates unsuspected tendencies to such sensitizations. Specific reactions to various inhalant allergens, such as those of animal emanations, orris root, pyrethrum, fungi, pollens, etc., frequently offer possible explanations for the reactions to stock dust extracts. In 1927, I reported the occurrence of reactions to various inhalant allergens in patients reacting to house dust extracts.

Where marked pollen or other types of allergy exists specific treatment often yields results without special attention to the dust reactions. Generally, however, I think it best to establish environmental control in the sleeping room and, if possible, in the

living room when dust reactions occur. By this I mean the removal of all material of animal origin from those rooms and the substitution of cotton or floss bedding, pillows, mattresses, and rugs. The floor, furniture, woodwork, walls, and curtains should be thoroughly cleaned with damp cloths at frequent intervals. In addition to these measures, desensitization with a mixture of several strongly reacting stock extracts is worthy of trial. Careful questioning of the patient will often indicate susceptibility to house dusts.

If the patient is asked to analyze the effect of various dust exposures, a davenport or chair, rug or coat may be found to be causing specific reactions. If the stock dusts do not react in such patients, special extracts as described by Doctor Lamson from the mixed house dust as well as dusts from special carpets or furnishings should be prepared. As I described in 1927, concentrated extracts can be obtained by just covering about twenty grams of the dust with the extracting fluid and, after two days, draining off this fluid and using it to extract a similar amount of the same dust. I have continued to obtain good reactions in most patients with the cutaneous method. In those patients failing to react to this technique the intradermal method is used.

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SAMUEL H. HURWITZ, M. D. (490 Post Street, San Francisco).—Doctor Lamson's paper presents a very important contribution to an interesting problem in allergy. When Dr. R. A. Cooke of Cornell University reported in 1922 a group of dust-sensitive asthmatics, he concluded that the active principle in the dusts to which they were sensitive contained a specific and unknown substance. This view has been upheld by some workers, and disputed by others. In our experience with dust-sensitive patients we have found two groups to exist. First, one in whom it is possible to demonstrate by careful and exhaustive tests sensitization to many biologically unrelated allergens and a second group who, although markedly sensitive to their own environmental dust, are negative to various animal hairs, pollens, foods, or miscellaneous test substances. We have, therefore, come to the conclusion that house dust extracts contain both specific and nonspecific allergenic substances.

The treatment of dust-sensitive patients is at times spectacular. Where elimination therapy cannot be successfully carried out, desensitization with a specific environmental house dust extract frequently gives excellent results. For the past four years, in the asthma clinic at Stanford Medical School we have had under close observation and treatment an interesting house dust sensitive patient whose history is worthy of brief comment. In 1926 a woman about thirty-two years of age came under our care. The physician who referred her remarked that "Mrs. H. is a terrible sufferer from asthma and nothing but hypodermics of morphin seem to relieve her." In 1923 she was advised to leave her home in Kansas and come to California, where her asthma continued unabated. Many cutaneous tests with the common animal epidermal, pollen, food, and miscellaneous proteins were all negative. Tests to both stock and autogenous house dust extracts, more particularly to the latter, however, gave very large reactions. Careful questioning elicited the information that this patient had brought all of her household furnishings with her from Kansas, so that she was exposed to the same allergens in California as she had been in her home state. Because the patient's economic status precluded any radical changes in her home, such as the removal of furnishings made from animal hairs and the creation of dust-free surroundings, we decided upon a course of desensitization with her own house dust extract. The results of treatment were extremely gratifying. It is now almost four years since treatment was commenced, and during this time the patient has had only several mild asthmatic paroxysms.

We are thoroughly in accord with Doctor Lamson's view that environmental allergens are of great importance in the diagnosis and treatment of many patients with asthma. Wherever tests with house dusts are carried out it has been our practice, where possible, to use extracts obtained from materials in the patient's own environment. These we feel have given us more valuable information than those carried out with stock dusts.

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EDWARD MATZGER, M. D. (909 Hyde Street, San Francisco).—The widespread application of the brilliant work of Dr. R. A. Cooke of Cornell on house dust as a new etiological factor that he published in 1922 brings out the necessity of again emphasizing the fundamental principles as laid down by this original worker.

Doctor Lamson and Virginia Inman in this paper help to cast light on the unknown substances found in most house dust. The trend of recent work in allergy seems to be in the discovery of factors hitherto unrecognized. The work on molds has definitely rescued from this unknown group one additional factor.

The feature which strikes me most forcibly in this article is the emphasis laid to inhalant factors as a cause of bronchial asthma. This etiological group has been much snowed under, in the recent literature, by the occasional spectacular food cases which are reported so much more frequently than factors in the inhalant group.

The fact that positive skin reactions are obtained from these varied specimens of individual dusts in people who are not exposed to them emphasizes the importance of proper interpretation of positive skin tests. Positive skin tests demonstrate both actual and potential mucous membrane sensitiveness. Doctor Lamson points out the importance of clinical trial as the best method of evaluating the significance of skin sensitiveness. This feature is fundamental.

Further investigation along these lines must be encouraged. It is only by these efforts that the many empirically discovered successful methods can be made rational.

LARYNGEAL OBSTRUCTION IN CHILDREN*

REPORT OF CASE

By RULON S. TILLOTSON, M. D.
Woodland

DISCUSSION by Edward S. Babcock, M. D., Sacramento;
Barton J. Powell, Jr., M. D., Stockton; Orrin S. Cook,
M. D., Sacramento.

MOST instances of laryngeal obstruction in children allow ample time for preliminary investigation before instituting treatment. Time is also usually available for deliberately carrying corrective measures into effect. Occasionally, however, the symptom of dyspnea is of such character that immediate action is mandatory. The prompt institution of treatment in these cases is of life-saving importance.

The procedures of tracheotomy and intubation are employed for the relief of acute laryngeal obstruction.

HISTORY OF THE OPERATION

The first reference to the operation of tracheotomy is in the writings of Asclepiades of the

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* Read before the California Northern District Medical Society at Sacramento, September 30, 1930.

Craeco-Roman period of medicine.¹ The opening of the trachea and larynx in some of the earliest cases was carried out principally for the removal of foreign bodies and for intense angina. Bretonneau in 1825 is credited with having performed the first successful tracheotomy in croup. The history of the development of the operation of tracheotomy is very interesting; however, its review is hardly within the scope of this paper. Intubation of the larynx in croup was introduced by Bouchut in 1856. O'Dwyer (1840-1898) is given the credit for perfecting the instruments for the operation as it is now performed. It may be added that some physicians at the present time favor direct laryngoscopic introduction of the intubation tube in preference to the O'Dwyer technique.

Familiarity with the symptoms of acute laryngeal obstruction is important. The choice of a procedure for its relief should depend on the causative pathology, and on the period of time that continuation of treatment may of necessity be required.

By way of illustration of these facts an instance of acute laryngeal obstruction, relieved by tracheotomy, and progressing to complete recovery is cited.

REPORT OF CASE

H. D., male, age two, entered the hospital on November 25, 1929, with a diagnosis of pneumonia. Two days before the child had been seen by his mother in the act of swallowing some kerosene. He had a severe coughing spell and vomited immediately after. Gradually increasing difficulty in breathing had been noted from that time until his admission.

On examination the child was restless and showed marked distress on respiration. A loud inspiratory and expiratory stridor was heard. No cyanosis was observed. On exposure of the neck and chest a marked indrawing at the suprasternal notch during inspiration was noted with accompanying retractions in the supraclavicular fossae and the epigastrium.

A diagnosis of acute laryngeal obstruction with threatened asphyxia was made. A tracheotomy was immediately done under local anesthesia, according to Jackson's technique. The dyspnea was at once relieved.

An x-ray taken later of the neck and chest was negative. Subsequent direct laryngoscopic examination showed a marked redness of the entire glottis with swelling of the arytenoids, the region of the false vocal cords, and the subglottic area. No ulcerations or membrane were noted. A culture taken direct from the larynx proved negative for diphtheria. The cause of the laryngeal obstruction as suggested



Fig. 1.—Lateral x-ray film of the normal larynx. Cross (x) indicates site of ventricles.

by direct laryngoscopic examination was a traumatic laryngitis from the aspirated kerosene.

Decannulation or permanent removal of the tracheotomy tube was not possible before the twenty-eighth postoperative day. Laryngeal exercises were carried out for several days prior to decannulation before the normal respiratory function of the larynx was re-established. By first changing to a smaller tube, then partially corking the tube, with later complete corking, and gradually increasing the time as the patient allowed it, permanent removal of the tube was finally possible. The tracheotomy fistula closed nicely a few days after decannulation.

Comment.—In this case an x-ray of the chest, laryngoscopic examination, and the taking of a culture were not carried out before a tracheotomy was done. The time necessary for these procedures would probably have been fatal to the patient, but they were later carried out to establish the character and cause of the obstruction.

The marked indrawing at the suprasternal notch as noted in this patient is the outstanding physical sign of acute laryngeal obstruction. The explanation for the indrawing is found in the fact that from the failure of the air to get through the larynx, the negative pressure established by the inspiratory expansion of thorax is not compensated for, and a drawing in of the unsupported soft tissues at the opening of the thorax results. This indrawing at the suprasternal notch, as has been stated by Jackson,² is never seen in the dyspnea of asthma, pneumonia, mediastinal or cardiac disease, unless laryngeal complications are present. As evidence that the significance of this sign is not appreciated the same author states that of 126 patients admitted to his clinic on whom a tracheotomy was necessary, one-half of this number had been diagnosed as asthma or pneumonia.

Cyanosis was not present, although suffocation was impending. Cyanosis should not be waited for as an indication for tracheotomy. The patient may die from exhaustion in his struggle for air, and cardiac failure may occur without the pronounced appearance of this sign. The restlessness was due to air hunger and is an important sign in the diagnosis of acute laryngeal dyspnea.



Fig. 2.—Instruments used in direct laryngoscopy.

The stridor was significant, as it was present in both the inspiratory and expiratory phase of respiration, indicating an obstruction to both the entrance and exit of air through the larynx. A similar type of stridor may be present in laryngeal diphtheria with the added factor that the child may not be able to cry, due to the presence of membrane between the cords. An inspiratory stridor with easy expiration and no loss of voice is suggestive of laryngismus stridulus, a condition where tracheotomy is rarely required.

TRACHEOTOMY AND INTUBATION

The selection of tracheotomy in preference to intubation as a measure to relieve the obstruction was due to the opinion that a tracheotomy, by putting the larynx at absolute rest, favored healing of any injury done by the aspirated kerosene. It was felt that an intubation tube inserted into an already inflamed and edematous larynx would excite and increase this inflammation, with a possible subsequent stenosis of the larynx. The fact that the safe removal of the tracheotomy tube was impossible before the twenty-eighth post-operative day rules out the question of intubation in this case. The latter procedure should not be employed where prolonged wearing of the intubation tube is anticipated. Difficulties in extubation and laryngeal stenosis may result from prolonged irritation by the tube. The great majority of laryngeal obstructions in children do not present emergency situations as in the instance cited, but allow sufficient time for making an exact diagnosis before treatment is begun.

The procedures which may be employed as aids in diagnosis are emphasized by the following case history.

REPORT OF CASE

E. J., male, age fifteen months, entered the hospital on February 27, 1930, with the complaint of difficult, noisy breathing. Three days before, the child had developed a croupy cough with accompanying difficulty in respiration. A few hours prior to admission he had a choking spell and became blue. The attack passed off after he coughed up some mucus, which apparently came from his throat. Temperature was 101.2 degrees, pulse 150, respirations 40.

On physical examination the child appeared extremely ill and in a state of prostration. The voice was faint and croupy, and a moderately loud inspiratory and expiratory stridor was heard. On exposing the neck and chest a limited amount of retraction was noted in the suprasternal and epigastric region during inspiration. Cyanosis was not present. The impression was that we were confronted by a moder-



Fig. 3.—Method of direct laryngoscopic examination of the larynx.

ate laryngeal obstruction, probably inflammatory in character; the marked prostration, the relatively low temperature, and high pulse rate suggesting diphtheria. An anteroposterior x-ray of the neck and chest was negative.

A direct laryngoscopic examination was made and a culture taken direct from the larynx. The glottis showed an intense reddening, with the vocal cords approximating poorly on efforts at crying. No ulcerations were noted. No membrane was present above the cords; however, below the cords in the subglottic region considerable tenacious exudate was noted. This was aspirated as thoroughly as possible. Breathing was less labored after this procedure.

The culture taken from the larynx showed the Klebs-Löffler bacillus, whose virulence was later checked by guinea-pig inoculation. Under antitoxin treatment the child recovered without further need of suction or other measures to relieve the obstruction.

Comment.—An anteroposterior x-ray of the neck and chest was negative in this case. Pancoast³ has recently pointed out certain landmarks in the lateral view of the upper respiratory tract that are of diagnostic importance. The lateral view of the normal larynx shows a zeppe-

shaped area of decreased density at the site of the ventricles. This landmark, as pointed out by him, may be obliterated or its outline disturbed in any one of three conditions, namely, cord paralysis, inflammatory conditions, or tumor. Pancoast has also pointed out that the normal width of the prevertebral soft tissues at the level of the laryngo-pharynx is about one-fifth that of the body of the underlying vertebra. Any increase in the width of this shadow, as would be present with a retropharyngeal abscess in this region, is of diagnostic importance. Pictures to demonstrate lesions in and about the larynx are taken laterally during the inspiratory phase of respiration in the child or during phonation in the adult. Since Pancoast's paper was given, we are routinely taking lateral as well as anteroposterior x-rays in our laryngeal cases for the additional information that these films may afford. Figure 1 shows the normal landmarks of the larynx and adjacent structures as referred to in this discussion.

Direct laryngoscopy should be carried out in every case of laryngeal obstruction. This procedure permits inspection of the larynx and the taking of a culture, if indicated, direct from the site of the lesion. Redness, edema, the presence of membrane, tumor, foreign body, and cord paralysis should be looked for. The instruments required for this work are shown in Figure 2. The method of direct examination of the larynx is shown in Figure 3. The use of a direct laryngoscope for the introduction of the intubation tube is shown in Figure 4.

Suction as used through the laryngoscope in this case is often of great value. Thorough aspi-

ration of membrane, secretion, and crusts may eliminate the necessity of intubation or tracheotomy. The use of suction through the laryngoscope in the treatment of laryngeal diphtheria was reported several years ago by Grover and Hardman⁴ at the Willard Parker Hospital in New York City. At the present time it is used in many of the larger hospitals for contagious diseases. Its value was recently cited in a large series of laryngeal diphtheria cases reported by Tolle.⁵ In his report only 18 per cent required intubation where suction was used, while 41 per cent needed intubation where this measure was not employed. Its use is also of value in removing crusts, secretion, and membrane in nonspecific types of obstructive laryngitis.

LARYNGEAL OBSTRUCTION

Detailed case reports could be given, illustrating other types of laryngeal obstruction; however, the review of such cases would be time-consuming and include repetition of many points already amply stressed. For this reason a simple enumeration of the more important causes of laryngeal obstruction, with brief comments on the diagnosis and treatment of each type, is given.

Laryngismus Stridulus.—This condition, sometimes referred to as inspiratory laryngospasm, occurs in infants as a complication of rickets and malnutrition. Sir St. Clair Thompson⁶ believes that the laryngeal obstruction is not due to spasm of the glottis, but to a collapse of unusually feeble laryngeal tissues during inspiration. The total absence of inflammation or membrane on laryngoscopic examination helps to establish a diagnosis in this condition. Tracheotomy is rarely required to relieve the dyspnea. In addition to the employment of measures of relief during the attack, treatment of the associated rickets should be carried out.

Laryngeal Diphtheria. The presence of membrane within the larynx or subglottic region and a positive culture of the Klebs-Löffler bacillus establishes a diagnosis of this condition. The treatment consists of laryngoscopic aspiration, antitoxin intravenously, with intubation or tracheotomy, if needed for threatened asphyxia.

Acute Streptococcus Laryngitis.—Intense reddening and edema of the larynx and often the presence of a dirty white exudate are seen in the laryngoscopic picture of this disease. The edema



Fig. 4.—Direct laryngoscopic introduction of the intubation tube.

may be present in the subglottic area. A culture of streptococcus, usually of the hemolytic variety, is obtained. The laryngeal condition in these cases is often a part of a severe respiratory infection involving the trachea and bronchi. Although relief of the obstructive laryngeal dyspnea may be called for and obtained by intubation or tracheotomy, the patient often dies due to the severe respiratory infection or one of its complications.

The treatment of these conditions may call for the relief of the laryngeal obstruction by intubation or tracheotomy. Streptococcus serum is used with benefit in some cases. Baum⁷ reports favorable results in the use of foreign protein in the form of mixed respiratory vaccine given early in the course of the disease. In some of the milder cases we have used ephedrin sulphate, hypodermically, every four hours with definite relief of the obstructive laryngeal dyspnea.

Postoperative Edema of the Larynx.—This condition is sometimes seen following bronchoscopy, particularly in infants when the procedure is prolonged. We had such a case develop during the past year, following the successful removal of a foreign body from the right main bronchus. A low tracheotomy was done to relieve the acute obstructive laryngeal dyspnea. Moersch and Boothby⁸ have pointed out the value of oxygen as a prophylactic for postbronchoscopic laryngeal edema in children. Their results seem to warrant its use routinely in these cases.

Laryngeal Tumors.—Papillomata are the most common benign tumors causing laryngeal obstructive symptoms in children. These tumors may be removed endoscopically without anesthesia.

Foreign Bodies.—The diagnosis is made by the x-ray, if opaque to its rays, or by direct laryngoscopic examination. The treatment is removal with direct laryngoscope and laryngeal forceps.

Bilateral Cord Paralysis.—This condition is characterized by firm approximation of the cords in the mid-line on laryngoscopic examination. Unless seen early and relieved by tracheotomy, the patient obviously dies of asphyxia.

A case of bilateral cord paralysis was recently reported by Tucker,⁹ occurring in a child under one year of age. The bilateral paralysis was due to pressure of an enlarged thymus on both recurrent laryngeal nerves. Bronchoscopy, followed by tracheotomy over the bronchoscope to relieve the acute obstruction, and subsequent x-ray of the thymus were the procedures carried out in the treatment of his patient.

Direct laryngoscopic views of the above described conditions are given in Figure 5.

SUMMARY

1. In most instances of laryngeal obstruction in children sufficient time is allowed for making an exact diagnosis before treatment is instituted. X-ray examination of the neck, with special attention to the lateral view, direct laryngoscopic



Fig. 5.—Direct laryngoscopic views: (1) Laryngismus stridulus (during inspiration). (2) Laryngeal diphtheria. (3) Streptococcus laryngitis. (4) Acute edema of the larynx. (5) Papillomata. (6) Foreign body. (7) Bilateral (abductor) cord paralysis.

examination, and the taking of a culture, when indicated, should enable one to make a diagnosis.

2. A few cases of laryngeal obstruction in children demand an immediate decision as to the treatment needed and prompt institution of this treatment to prevent loss of life. Recognition of the cardinal signs of acute laryngeal dyspnea is fundamental.

3. An enumeration of the more important causes of laryngeal obstruction in children is given. Brief comments are made on diagnosis and treatment.

Woodland Clinic.

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DISCUSSION

EDWARD S. BABCOCK, M. D. (Medico-Dental Building, Sacramento).—In the presence of laryngeal obstruction, when shall the attending physician call in the laryngologist and how can the need for instrumentation be prevented?

In the past, in moderate degrees of obstruction, common croup or non-diphtheritic laryngitis was usually the diagnosis until proven otherwise, as this was the most common condition seen. If diphtheria was suspected, perhaps ten thousand units of antitoxin were given intramuscularly.

Today, when trained laryngologists are always available, except in the remotest communities, and when our knowledge of diphtheria is more complete, this course seems inexcusable.

Children who have a general respiratory tract infection, with only a moderate laryngeal obstruction which is worse at night and subsides during the day, in most cases can be safely treated as having common croup. But where diphtheria is proven or is likely, large amounts of intravenous antitoxin, warmed, diluted and given slowly are indicated. We have given fifty to one hundred thousand units in several cases with recovery where instrumentation seemed unavoidable at the onset.

Active immunization of our child populace against diphtheria has materially reduced the incidence of laryngeal obstruction, but unfortunately only a very small number of those immunized are followed up with Schick tests to determine immunity.

When in doubt as to the pathology present or the course to pursue in treatment, no time should be wasted in calling the laryngologist.

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BARTON J. POWELL, JR., M. D. (Medico-Dental Building, Stockton).—Fortunately for humanity, cases of laryngeal obstruction in children are becoming less and less frequent. The greatest single cause of this reduction is undoubtedly the early use of antitoxin therapy and prophylactic treatment of diphtheria. This disease is fast becoming an uncommon entity and the severity of those cases which do appear is usually attenuated. As Doctor Tillotson has brought out, direct laryngoscopic examination of all cases of laryngeal diphtheria with asphyxia should be done. By this procedure the exact condition of the structures can be noted, smears taken direct from the laryngeal mucosa and intubation readily accomplished. Intubation by direct laryngoscopy affords a quicker and surer method and will, I believe, supplant the older methods where the field of operation is hidden from view.

A frequent cause of acute laryngeal obstruction in children is the inspiration of foreign bodies. These usually demand immediate action. A foreign body on the aryteno-epiglottic folds, or even in the cavity of the larynx, can often be dislodged with the finger and the patient subsequently expel it by coughing. Care must be taken with this procedure not to force the material through the glottis. In cases where the obstruction is partial and asphyxia is not impending, direct laryngoscopy should be done and the foreign body removed with the laryngeal forceps. Where time and opportunity permits, roentgenograms are often helpful in locating the object.

Doctor Tillotson has stressed the indications and advantages of tracheotomy and I wish to again emphasize the importance of this life-saving procedure. The operation is neither difficult nor serious. There is little operative trauma, and complications are rare. Tracheotomy should be done in every case where asphyxia is impending and where the less radical procedures do not immediately supply the required relief. This excellent operation is only too often regarded as a last-moment attempt to ward off exitus. When the indications are present, perform tracheotomy immediately. Do not wait until the patient is in extremis and thereby severely jeopardize a favorable prognosis.

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ORRIN S. COOK, M. D. (Medico-Dental Building, Sacramento).—Fortunately or unfortunately the roentgenologist has the opportunity of seeing very few cases of laryngeal obstruction. Most of these cases are acute and are diagnosed without waiting for an x-ray examination. Most of the patients whom we see are those where foreign bodies lodge in the larynx. This is comparatively rare, but occasionally does happen. If the foreign bodies are radio-opaque, the x-ray is of considerable assistance, but if they are radio-lucent the x-ray does not help.

The only other condition which I have seen with any frequency is retropharyngeal abscess. This condition in the advanced stages gives a bulging of the posterior wall of the pharynx in the lateral view which is quite diagnostic.

✽

DOCTOR TILLOTSON (Closing).—I have endeavored in this paper to stress the cardinal signs of laryngeal obstruction and point out the measures at our disposal in determining its cause. The procedures employed in maintaining a patent airway in this portion of the respiratory tract have been given. I agree with Doctor Powell that the operation of tracheotomy is not difficult or serious, with the qualification that the incision in the trachea should always be made below the first tracheal ring, avoiding injury to the cricoid cartilage. Injury to this cartilage may result in chronic laryngeal stenosis. After-care in keeping the tracheotomy tube and trachea clean, using suction if necessary, is of the greatest importance in avoiding post-tracheotomy complications.

BACTERIOPHAGE AS A THERAPEUTIC AGENT IN GENITO-URINARY INFECTIONS*

By E. W. SCHULTZ, M. D.
Stanford University

INTRODUCTION

WILL ROGERS claims that all he knows is what he reads in the newspapers. All I can claim to know regarding the therapeutic merits of bacteriophage in genito-urinary infections is what I have read in the clinical reports sent to my laboratory. Whether the source of my information is any more reliable than that of Will Rogers' is problematic. Despite this uncertain status of my knowledge your program committee has had the courage to invite me to dispense something more or less authoritative on a singularly intricate question—has bacteriophage a place among therapeutic agents of value to the urologist? I must admit at once that I have failed to bring you a categorical answer to this question. To some this may represent the equivalent of a negative reply, but this is not necessarily the case. With any therapeutic procedure which does not yield uniformly successful results—and these are rare—one should not allow himself to be led astray by the failures which may initiate or sprinkle an inquiry. A procedure may have inherent merits, but these may not be fully revealed until the various factors which influence the result have been determined and, if possible, brought under control. Though we recognize that Nature yields up her secrets with great reluctance, we are often apt to draw conclusions long before the evidence is in. Indeed, some of us find the path a little too irksome and are inclined to seek a way out in logic whatever the original premises may perchance happen to be. We cannot escape the fact, however, that, while people may argue indefinitely (as it is said they once did) as to

*From the department of bacteriology and experimental pathology, Stanford University, California.

*Read before the Western Branch of the American Urological Association, November 6, 1931.

whether or not a fish when put into a full bowl of water will cause water to flow out of the bowl, the only way to really settle such a question is to actually put a fish into the bowl and observe the results.

HOW THIS STUDY AROSE

Several years ago, during a period of a great discussion for and against the possible merits of bacteriophage as a therapeutic agent, it occurred to us that a more satisfactory way to settle this question might be to provide a special service which would enable interested physicians to determine by *actual trial* the therapeutic merits of this agent. It was obvious that the commercial products which were beginning to appear on the market would not be likely to clear the atmosphere. It was clearly apparent from a review of the literature that only the most suitable 'phages for each individual case should be provided to the physicians actually on the firing line of such an investigation. The physicians using the service which we inaugurated have reported their results to us, and it is to these clinical reports that I shall refer in this paper.

THE PHENOMENON OF BACTERIOPHAGY

We find that there still are some physicians to whom bacteriophagy is either an essentially unknown phenomenon or regarding which they have very fragmentary knowledge. This may seem a little surprising in view of the fact that nearly twelve hundred papers have appeared in biologic and medical literature bearing on various aspects of the phenomenon, but it may not be generally known that very good reviews,¹ presented from different viewpoints, are now available in both American and British literature for the benefit of the English reader, not to mention some of the briefer reviews which accompany some of the clinical reports. Since there is still some haziness regarding the essential features of this phenomenon, a brief survey may be welcome before we take up an analysis of the clinical results.

The phenomenon of bacteriophagy may be defined as the lysis of bacteria by an infravisible agent of unknown nature, regenerated at the expense of the bacteria dissolved under its action. The lytic principle itself (bacteriophage) is often referred to as *transmissible bacterial lysin* for the reason that it may be distinguished from all other bacteriolytic agents by the fact that it is regenerated and increased during the progress of bacterial lysis, a drop of one dissolved culture being all that is necessary to initiate dissolution of the next. In a series of any length the culture finally dissolved will present about the same concentration of bacteriophage as the original filtrate, provided, of course, that suitable conditions for bacterial growth and multiplication are offered. An interesting aspect of the phenomenon is that young growing cultures seem to be necessary for its normal progress. Indeed, once added to a young culture, bacteriophage gives impetus to bacterial proliferation, causing the young, already

rapidly dividing cells, to be plunged into an orgy of reproductive activity. During this active bacterial proliferation, individual cells begin to swell and rupture in an explosive manner. With rapidly increasing momentum more and more organisms disappear in this manner, with the result that in the course of a few hours after the onset of the phenomenon a highly turbid broth culture may become entirely clear and essentially free of organisms. Since bacteriophage exercises a growth-stimulating action on young cultures followed by an explosive rupture of individual organisms, the result of a sudden influx of water into the cell, certain investigators have concluded that bacteriophage may be an enzymic principle acting in some way on the surface membrane of bacteria, causing a sudden influx of water, resulting in an explosive rupture of the cell. On such an assumption one might define *bacteriophage* as a malign influence which plunges bacteria to an early death as a result of "*fast living*" and "*too much drinking*."

What the precise nature is of the agent responsible still remains a mystery. Not a few theories have been advanced in explanation, but, unfortunately, not one of them can be said to have the support of *all* the facts. So far as its possible usefulness as a therapeutic agent is concerned, it matters little whether the agent is a living virus: a ferment elaborated by tainted microbes, or of some other nature. The important fact is that it is a transmissible lysin which impresses itself on susceptible organisms. I say "susceptible organisms" because bacteriophages capable of attacking some organisms are often entirely unable to impress themselves on others. Indeed, a 'phage active for a given bacterial species is frequently entirely incapable of attacking some of the strains of that particular species. 'Phages differ widely in this respect. Some may possess a very wide range of activity, spreading their activity over several bacterial species, while others may restrict their activity to a single strain or two of a given species. This difference in range of activity represents one of the chief stumbling blocks in an inquiry designed to elicit the value of bacteriophage as a therapeutic agent. Without preliminary laboratory tests it is impossible to say whether or not a given 'phage will lyse, even in the culture tube, an organism responsible for a given infection. While it is possible by the selection and pooling of an adequate number of different 'phages to somewhat overcome these uncertainties, it is obviously impossible to study the therapeutic merits of bacteriophage without definite knowledge that the causal organism is lysable *in vitro*.

Not only do 'phages differ in the range of their activity, but they differ widely in the intensity and completeness with which they effect lysis. While the differences which may be exhibited is not wholly a function of the 'phage, but of the organisms as well, the selection of more active "virulent" 'phages for therapeutic studies is, nevertheless, exceedingly important. The ideal 'phage for therapeutic trial is obviously one which

¹ d'Herelle, 1926, 1930; Brugnoghe, 1927; Hadley, 1928; Schultz, 1929, 1930; Twort, 1930; Burnet, 1930.

not only causes complete lysis of the cultures of the causal bacterium, but one which tends to hold in check the appearance of the so-called *secondary cultures*. Such 'phages, however, are the exception rather than the rule, and this is particularly true of 'phages active for the colon group of organisms. With these organisms, secondary 'phage-resistant variants almost invariably make their appearance in unfiltered lysed cultures within twenty-four to forty-eight hours after maximum lysis, especially if optimum temperature conditions prevail. There are, on the other hand, instances in which unfiltered cultures remain clear for days, and even for weeks. We have, for example, in our possession a staphylococcus bacteriophage which generally holds the appearance of secondary cultures in check for longer periods of time. Lysed coli cultures, as I have indicated, generally show secondary cultures promptly, unless kept at low temperatures (15 to 20 centigrade). This tendency for 'phage-resistant variants to arise is not without bearing on the results of 'phage therapy. It should be added, however, that the appearance of 'phage-resistant organism in the tissues of the affected host does not mean that the patient is left with a more virulent infection. On the contrary, these 'phage-resistant variants are generally distinctly less virulent in character. During the past few years a great deal of work has been reported on the subject of *bacterial variation*. It has been found that cultures of most pathogens may naturally shift from the so-called "S," or smooth, more virulent types, to the "R," or rough types, which relatively are avirulent; the "smooth" forms giving rise to stormy, the "rough" forms to less stormy clinical pictures. I shall refer to this again later.

Bacteriophages have been isolated for many different species of bacteria, including members of the colon typhoid-dysentery group; the hemorrhagic septicemia group; the diphtheria and diphtheroid group; for the pyogenic cocci and many nonpathogens. For some of these it is much more difficult to find 'phages than for others. It is not difficult to find 'phages for members of the colon group, but very difficult to isolate those active for staphylococci, and especially for streptococci. While we have experienced no great difficulty in isolating 'phages active for various nonhemolytic streptococci, in only a few instances have we been fortunate enough to recover those active for hemolytic streptococci. This seems to have been the experience of other investigators, for there is scant reference to streptococcus 'phages in the literature. Contrary to the experience of other investigators we are able to lyse hemolytic as well as nonhemolytic variants of *Staphylococcus aureus*.

The sources of 'phages are varied. The feces of man and animals; normal, diseased, and convalescent, present 'phages in varying quantities and of different ranges and degrees of activity. The most commonly used source is sewage; the sewage of large cities being more promising than that of smaller towns. Healing wounds offer another

source, as do also nasopharyngeal washings: sources which should in reality be studied more carefully, especially for 'phages active for the pyogenic cocci. The urine from cases suffering with chronic cystitis may, as Larkum (1926) and others have shown, frequently contains a bacteriophage of weak or moderate activity. Sewage has the advantage in that it contains a rich mixture of 'phages, all of which may be revealed if we take the trouble to test the sewage filtrate simultaneously against a sufficiently large number of bacterial species and strains. Recently we have begun the practice of feeding bacterial strains which we have been unable to lyse to various animals, including the horse, rabbit, dog, chicken, duck, and monkey, with, in the main, gratifying results. It is evident from what I have just said regarding the sources of 'phage that we do not, as some physicians seem to believe, "develop a bacteriophage from the cultures" sent us. There is no convincing evidence to support the view that bacteriophage may be developed from an originally 'phage-free culture.

LITERATURE ON BACTERIOPHAGE THERAPY

Those who are familiar with the basic aspects of the Twort-d'Herelle phenomenon find no difficulty in understanding why investigators quite early in the development of this new knowledge began to ask themselves why such an agent should not possess therapeutic merits. On theoretic grounds at least, bacteriophage possesses all the features of an ideal therapeutic agent, not only in being potentially able to destroy the causal agent, in the process of which it is regenerated, but in being at the same time, so far as all evidence goes, entirely harmless to the patient. For what other therapeutic agents may as much be said? With most therapeutic agents the germicidal activity *in vivo* must always be carefully weighed against the depressing, and even more damaging action, which they may exercise on tissues already the seat of more or less marked microbic injury. To say, however, that bacteriophage possesses, theoretically at least, the properties of an ideal therapeutic agent still leaves its actual practical usefulness an open question. An agent may be wonderfully effective as a germicidal agent in the test tube and at the same time prove relatively inert when applied against the same organism within the confines of an infected tissue. The actual proof must, therefore, always rest in the last analysis on careful clinical studies. In the case of bacteriophage there is, unfortunately, a relative dearth of significant clinical observations. While there are a number of reports in the literature bearing on its use in urinary infections, the individual series are for the most part small and not altogether satisfying. One gathers the general impression, however, from the great majority of the reports relating to the treatment of urinary infections by 'phage² that when

² Becherich and Hauduroy, 1922, 1923; Couroux, Philibert and Cordey, 1922; Alphonsi, 1924; Arloing, Dufour, Bouvier and Sempé, 1924; Philibert, 1924; Pereira, 1924; Lehdorff, 1924; Zdansky, 1924, 1925; Frisch, 1925; Dalsace, 1926; Larkum, 1926; Cowie, 1926; Sickenga, 1925; Caldwell, 1928; Krueger, Faber, and Schultz, 1930.

properly chosen and properly administered the 'phage possesses well-defined therapeutic merits in the less complicated types of pyelocystitis. These results, together with the generally favorable trend of the reports bearing on the treatment of nonurinary infections such as furunculosis, carbuncles, and wound infections due to staphylococcus,³ all seem to argue clearly for at least a further investigation as to its usefulness as a therapeutic agent.

RESULTS REPORTED TO OUR LABORATORY

A. *Bacillus coli*, Pyelitis, and Cystitis:

May I summarize now the clinical results which have been reported to us by physicians to whom 'phages have been supplied by our laboratory. The analysis of these reports has been far from a simple and altogether satisfying task, mainly for the following reasons, which I should like to unburden myself of at this time. Though we have endeavored to make clear to physicians using our laboratory service that our part in this coöperative endeavor is prompted solely by a desire for reliable information as to the therapeutic merits of bacteriophage, it has proven exceedingly difficult to secure the type of reports needed in a study of this sort. The following represent a few of the more common faults in rendering reports: (1) failure to give a complete clinical diagnosis. Indication as to whether pyelitis is *acute* or *chronic* is of far greater importance in a study such as this than information that the infection is on the right or left side; (2) failure to give a synopsis of the clinical history. This is especially important when the diagnosis is entirely omitted; (3) I believe you will grant that in a therapeutic study the size of the dose administered, the route, and the spacing of the doses should be carefully entered in a report, and yet, such pertinent information is not infrequently omitted from these reports; (4) the results realized by the treatment certainly deserve some comment, but this is also sometimes omitted. I should state, parenthetically, that in our directions on the report blank we have requested that clinical results be reported as "positive" only when there *seemed* to be no doubt as to relationship of the clinical improvement to the therapeutic procedure. One can, of course, never be certain that in the individual case the two are always directly related, but some significance can probably be attached to such observations when they relate to a sufficiently large number of cases. *Doubtful* as well as clearly unchanged clinical conditions we have asked the physicians to report as "negative."

Now, what do the reports on treatment of pyelitis and cystitis show? After discarding the incomplete records, there remained for analysis

a total of 191 case reports; 40 of these relate to acute and subacute cases, and 151 to chronic cases. Let me reverse the order and present first the results reported on the chronic cases. Of the 151 cases in this series 72 were reported as "positive," while 79 were reported as clearly unchanged or "negative." That is, of the total number of chronic cases treated, approximately 47 per cent were thought to have been improved by 'phage treatment. Of this number, fifteen recurred *within* a period of ten days; one recurred after two weeks, and one after three months. It is possible that more than two recurred after the tenth day, but my information on this point is lacking. It is noteworthy that of the seventy-two cases which were recorded as having been improved, thirteen seem not to have become entirely free of the colon organism in the urine at any time, though in the minds of the physicians reporting these cases there was unquestionable clinical improvement immediately following the treatments; an improvement which, so far as my information goes, persisted for some time. In the light of our present-day knowledge regarding bacterial variation, either induced by 'phage or occurring naturally, such a therapeutic effect is not improbable. In such instances there is presumably a shift from the more virulent "S" type to the less virulent "R" type variants (Hadley, 1928). Returning to the case reports, if we now count out the cases which suffered recurrences, likewise those in which the organisms persisted in the face of clinical improvement, there remain in this series forty-two cases, or 28 per cent of the entire series of 151 chronic cases, regarding which there is, so far as I can ascertain, no question as to the immediate and apparently complete response to the treatment. Thirty-two of this number cleared up within forty-eight hours after the first dose of 'phage was administered; the remaining ten responding within seventy-two hours. Unfortunately, I have comparatively little information regarding associated anatomic disturbances in this particular group, but it appears that, with the exception of two cases of renal ptosis and two of prostatitis, the series seems to have been essentially free of more significant anatomic disturbances. However, in the series of seventy-nine cases which failed entirely to respond, associated pathologic states were indicated in the diagnosis or clinical histories of a fair number, and these complications included prostatitis, prostatic hypertrophy, epididymitis, renal ptosis, hydro-ureter, ureteral stricture, ureteral obstruction, renal and bladder calculi, pyelonephritis, diverticulum of the bladder, leukoplakia of the bladder, neurological bladder, renal tuberculosis, actinomycosis, metastatic cancer, etc. Quite apart from the question as to whether the 'phage would have precipitated recovery had the anatomic status of these cases been less abnormal, it seems scarcely proper to include cases of this type in a basic inquiry of this sort. I have gathered the impression that the bulk of the cultures we receive for 'phage susceptibility test are from cases which are more or less exasperating to physicians who in

³ Bruynoghe and Maisin, 1921; Gratia, 1922; Sauvé and Jacquemaire, 1929; Raiga, 1929; Bazy, 1925; Larkum, 1928; Rozemon, 1929; Alderson, 1930; Crutchfield and Stout, 1930; Sauvé, 1930; as in the treatment of dysentery (d'Herelle, 1921; da Costa Cruz, 1924; Pereira, 1924; Spence and McKinley, 1924; etc.); typhoid and paratyphoid infections (Beckerich and Hauduroy, 1922; Hauduroy and Arsimoles, 1923; Hauduroy, 1925; Alessandrini and Doria, 1924; Smith, 1924; Richet, Azerad and Delarne, 1924; Breton, 1930; etc.

final desperation have said to themselves, "Well, now isn't this a case on which to test the therapeutic merits of 'phage?" This is a perfectly natural reaction, but is this the type of case on which to base such an inquiry? A sounder practice would seem to be to give alternate cases 'phage, and then compare the results with other forms of therapy.

(To be continued)

TETANUS*

By JOHN E. WRIGHT, F. R. C. S.
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THE tetanus bacillus is widely distributed throughout the world, but is more common in certain districts than others. It is very common in the tropics and in some of the tropical islands, where the temperature remains constantly fairly high, and under these conditions appears to possess an increased virulence. It occurs normally in the intestines of herbivora and to a lesser extent of other animals and man. It is found in 15 per cent of horses around New York. For this reason highly cultivated manured districts frequently contain the bacilli and spores in large numbers. The spores are extremely resistant, both to heat and chemicals, and can retain their vitality for years in a dry condition. By means of an infected splinter, Henrijean reports a successful animal inoculation after eleven years. It produces exotoxins, tetanospasmin and tetanolysin, the former with a special affinity for nerve cells, probably related to their lipoidal contents, the latter of little pathological importance. Susceptibility in different animals varies enormously. The amount of toxin sufficient to kill a fowl will kill five hundred horses. Under natural conditions fowls do not contract the disease, while horses under their extreme susceptibility are especially liable to contract tetanus following any wound. Man is almost as susceptible as the horse, and to him 1/300 of a grain of the toxin is a fatal dose.

Deep, contused and badly lacerated wounds, especially if a foreign body is present, are favorable but by no means the invariable accompaniment of infection. I have seen more than one case develop through feet infected with chiggers. The bacilli tend to remain localized to the point of infection and there multiply moderately and produce their exotoxin, which is taken up by the end plates of the motor nerves and travels by the axis cylinder to the central nervous system. A few may be transported by leukocytes.

The incubation period varies within wide limits, roughly from five days to three weeks, usually from ten to fourteen days. That is the time taken for the toxin to travel from the point of infection to the central nervous system. Symptoms appear earlier in tropical countries, sometimes within a few hours. The shorter the incubation period the worse the prognosis.

* From the Holberton Hospital, Antigua, British West Indies.

* Abstract of an address given before the Washoe County Medical Society of Nevada on June 9, 1931.

SYMPTOMS

The early symptoms are rather indefinite, but restlessness, irritability, insomnia, and sleep broken by terrifying dreams frequently occur. The existence of slight muscular rigidity or twitchings in the neighborhood of a suppurating wound should arouse suspicion and this is usually coupled with an exaggerated reflex response to gentle tapping of the muscles of the limb. Cases of local tetanus not infrequently occur on opening up and operating on old war injuries.

There may or may not be a peculiar grin, known as the risus sardonicus. The spasms spread to the trunk and limbs, which are exceedingly painful, violent, and exhausting, with only partial remissions; the patients usually remain quiet, probably from fear of provoking spasms. Fortunately the respiratory muscles are involved late. The slightest stimulus, *e. g.*, a draught, attempt at voluntary movement, or a banging door, is sufficient to throw the victim into violent spasms of a tonic character. The body is contorted and the respiration impeded with grunting and, indeed, muscles may be ruptured by the violence of the contractions on occasions.

A general rigidity, statuesque, is commonest in my experience, but an arching backwards of the spine (opisthotonus) is also common. Temperature usually runs from 101 to 103 degrees, but hyperpyrexia is not unusual. A moderate leukocytosis of 12,000 to 14,000 with a polymorphonuclear count of from 80 to 90 is the general rule. The unfortunate individual is only too conscious of his pitiable plight, shown by the look of terror which to me is almost characteristic. Death usually occurs in fatal cases in from three to five days from exhaustion.

Prognosis.—The prognosis is always serious. In cases in which symptoms show themselves under ten days it is about 40 per cent, but after three weeks it drops to about 15 per cent. Too often the disease is fully developed before treatment is commenced. Signs of bad prognostic import are hyperpyrexia, sleeplessness, strabismus, dysphagia, and respiratory involvement.

Diagnosis.—The most reliable test is to dilute some of the discharge from the deep parts of the wound with broth, divide it and inject one part into a susceptible animal, like a mouse or a guinea-pig, while the other is mixed with one cubic centimeter of tetanus antitoxin and injected into another animal. If the former develops tetanus while the latter escapes, there should be no doubt as to the diagnosis. Do not wait to establish a diagnosis in a doubtful case.

TREATMENT

In treatment the first and most important factor is to give a prophylactic dose of 1500 units to every case where a wound or injury may be suspected of harboring the bacillus, such as blank cartridge wounds, and wounds likely to be contaminated with soil or manure. If there are reasonable grounds for suspicion this dosage should be repeated at the end of a week or ten days. Subcutaneously, antitoxin is absorbed

slowly; it takes about forty-eight hours to reach its maximum concentration.

It is recommended that 10,000 units at least be injected intrathecally at the earliest possible moment under anesthesia, and 10,000 units intramuscularly at the same time, in any patient who presents any definite symptoms. I regard anesthesia as essential in these cases. If there is no improvement in eighteen hours these doses should be repeated, and it is sometimes necessary to do this daily on three or four successive days. The volume of serum injected intrathecally should, of course, be rather less than the amount of cerebrospinal fluid drawn off and run in by gravity. In cases which respond to this treatment it is still wise to inject 10,000 units daily until the danger of relapse is passed, as shown by the absence of spasms and complete muscular relaxation. Intravenous administration is not recommended, as therapeutically it is inferior to the intrathecal method.

Treatment of wound, if present, is important and requires judgment, and I strongly recommend before any manipulative treatment is undertaken that an injection of 10,000 units should be given intramuscularly.

Local Treatment.—Amputation well above the site of infection, excision of the wound, or local irrigation with oxygenizing antiseptics, and, of course, efficient drainage, are methods which may be used, according to circumstances. Carrel's method is often very useful, using hydrogen peroxid, hypertonic saline, or Dakin's solution, etc. Of these I prefer hypertonic saline with sodium citrate. Symptomatic treatment consists in keeping the patient quiet in a darkened room and removing all sources of irritation or stimulation liable to provoke reflex spasms. Chlorotone in twenty-five grain doses in olive oil per rectum was useful in reducing nervous excitability.

No cases of local tetanus came to the Holberton Hospital while I was there. It is simply tetanus occurring in a person insufficiently protected or immunized, and characterized by local spasm and rigidity of the muscles adjacent to the wound. It is very rare except in after-war injuries, where the antitoxin injected at the time of injury was insufficient to give full immunity. It may show itself weeks or months after the initial injury, usually after further operative interference. The affected muscles show rigidity and spasticity and differ only in degree from the major tetanus, except in one respect, and that is, the stiffness tends to persist sometimes for months. It is practically never fatal if properly treated. Tetanus does not appear to be very common in the United States of America. For the one hundred thousand admissions into the Los Angeles General Hospital between 1916 and 1923 there were seventy-two cases of tetanus, or one in fourteen hundred admissions.

Even with this proportion, taking the country as a whole, it is not a condition which we can afford to neglect.

Medico-Dental Building.

RESUSCITATION OF THE NEWBORN: COMMENTS ON METHODS*

By ETHEL RIGHETTI, M. D.
San Francisco

DISCUSSION by Dorothy A. Wood, M. D., San Francisco;
Karl L. Schaupp, M. D., San Francisco.

THE anesthetist as a member of an obstetrical unit, administering anesthetic agents to the mother, is increasingly called upon to aid in the resuscitation of the newborn, because of his familiarity with the apparatus and the gases used according to the newer conception of respiration.

Asphyxia neonatorum is the term applied to indicate an absence of breathing in the newborn. The circulation continues at birth, but there is an absence or failure of respiration, causing death. Respiration is initiated and regulated by the action of the blood gases, especially CO₂ on the respiratory center. Asphyxia results from interference with this gaseous exchange either before or after birth, through such causes as premature separation of the placenta, compression of the cord, delayed labor, the use of various drugs such as morphin, atelectasis of the lungs and intracranial injuries and pressure affecting the circulation of the respiratory center. Since varying degrees of intracranial congestion and the tendency to hemorrhage results from asphyxia, the method used in treating these infants often determines the outcome.

MANUAL METHODS HARMFUL

The manual methods, positively harmful, are still widely used. Swinging the child by the feet or arms increases cerebral congestion and may cause hemorrhage. Vigorous rubbing of the skin or spanking often cause hemorrhage and injury to the internal organs, as does also the flexion and extension method of resuscitation. The immersion of the child alternately in ice water and in warm water dissipates heat and produces or adds to shock.

Mild cases of asphyxia respond often to the Sylvester method of artificial respiration, and to the "mouth to mouth" inflation of the infant's lungs, provided only gentle pressure is used. Vigorous inflation causes emphysema. Drugs are valueless in asphyxia as respiratory stimulants. Adrenalin into the heart muscle may help to bolster a failing circulation pending the effective use of carbon dioxid and oxygen.

Commonly in the newborn, and particularly in the premature infant, more or less extensive areas of atelectasis are present in the lungs. The circulation is deficient in both carbon dioxid and oxygen and the respiratory center remains inactive or respiration is feeble and irregular.

CARBON DIOXID PROCEDURE

The physiological stimulant of the respiratory center is carbon dioxid. Given with oxygen which is essential to the vitality of the center and to the body metabolism, in mixtures of 5 per cent carbon dioxid and 95 per cent oxygen, we

* Read before the Anesthesiology Section of the California Medical Association at the sixtieth annual session at San Francisco, April 27-30, 1931.

have the logical treatment of asphyxia of the newborn. With the infant warmly wrapped and the respiratory passages free from fluid or meconium through gentle suction, these inhalations at a pressure no greater than six millimeters of mercury usually initiate respiration. They should be continued for several hours after respiration is established. Occasionally with more marked depression higher percentages of carbon dioxide must be used at the beginning. In infants with atelectasis the carbon dioxide therapy must be continued for several days or pneumonia will supervene.

This treatment usually suffices except in patients with severe intracranial damage. Where there are extensive hemorrhages or tears into the meninges, or brain injuries, treatment is most often ineffective. Lumbar puncture may relieve pressure due to hemorrhage. Artificial respiration by means of the Drinker respirator, along with the inhalation of carbon dioxide, has been successful in a small number of patients. If adequate ventilation of the lungs is secured and life maintained over a long enough period, it seems reasonable to conclude that the depression of the respiratory center may be overcome and a normal activity be established.

Anesthetists will be interested in applying the physiological therapy not only to resuscitate the asphyxiated infant, but to all newborns as a prophylactic measure to reduce the present high neonatal deaths from asphyxia and pneumonia.

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DISCUSSION

DOROTHY A. WOOD, M. D. (1390 Seventh Avenue, San Francisco).—Resuscitation of the newborn, as Doctor Righetti brings out, is most successfully accomplished by the use of carbon dioxide and oxygen, usually in mixtures of 5-10 of CO₂ and 95-90 of O₂. The method of administration may vary, depending on whether the child has breathed spontaneously or not. If the child has breathed but its respirations are feeble in excursion, the low pressure cylinder with gas flowing through a wash bottle and connected by rubber tubing to a funnel, which can be placed beside the baby's face, is used. This can be continued for several hours or several days, as indicated. But if the child has made no attempt to breathe, then it is necessary to use a resuscitator which is automatically arranged to produce artificial respiration and so establish spontaneous breathing in the child. When the latter method is used, it is necessary that the respiratory passages be first freed from fluid and meconium that none of this material is forced down into the baby's lungs.

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KARL L. SCHAUPP, M. D. (490 Post Street, San Francisco).—Doctor Righetti says that manual methods are positively harmful. This statement should be modified, for if properly performed, artificial respiration by "folding manœuvre," gentle spanking of the buttocks and stimulation of the skin are of great value. One must remember, however, that the tissue of a newborn child cannot stand a great deal of trauma.

The immersion of a newborn in cold tubs has no value in resuscitation, in fact it probably is the cause of failure more often than not. Hot tubs, on the other hand, are invaluable. Their use insures maintenance of normal temperature and is an excellent stimulating agent as well.

The use of five per cent carbon dioxide and 95 per cent oxygen is, to my mind, the best method at hand at the present time. However, to be effective the mix-

ture must reach the lungs, which means artificial respiration or positive pressure. Both of these, by mechanical means, carry with them greater danger than when gentle manipulations are made by experienced hands. This is especially true in instances where there is a little excitement and haste is being made. Valves are opened too widely or proper adjustment of mechanism is not made, and the damage which results is irreparable.

ERYTHEMA INFECTIOSUM*

By HARRY C. COE, M. D.

Oakland

AND

By FRANK L. KELLY, M. D.

Berkeley

IN October, 1930, a small epidemic of erythema infectiosum occurred in Berkeley. Cases were also seen during the months of November and December. This epidemic aroused my interest, and on reviewing the literature I was surprised to find that erythema infectiosum had never been reported from California. In fact, very few epidemics have been described in America.

COMMENT ON THE BERKELEY EPIDEMIC

It is the purpose of this paper to briefly report the Berkeley epidemic and to review the findings in this exanthem in order that others may recognize the disease should it appear elsewhere in California.

Erythema infectiosum is one of the common exanthemata of childhood in Germany and Austria. It was first described in 1886 by Tschamer, who, however, believed it was an abortive type of German measles. Ten years later Escherich proved that it was a separate and distinct disease and in 1899 it was given the name erythema infectiosum by Stricker. In 1904, while working in Escherich's Clinic in Vienna, Shaw studied an epidemic of erythema infectiosum, and on his return to America in 1905 he wrote a very excellent and complete description of the disease in the *American Journal of Medical Sciences*.¹ His was the first report on this subject in the American medical literature. In 1926 Herrick reported the first epidemic of erythema infectiosum in America. His paper appeared in the *American Journal of Diseases of Children*.² Since then other epidemics have been reported from St. Louis, Hamburg, New York, and Ogden, Utah.³ Although the disease was recognized thirty-five years ago in Europe and described in the American journals twenty-five years ago, it was not until four years ago that an epidemic was reported in this country. Erythema infectiosum is either uncommon in America, or it is being incorrectly diagnosed as something else.

Erythema infectiosum is a mild contagious disease of childhood, without subjective symptoms, and characterized by a maculopapular, rose-red rash, which is more pronounced on the face, legs, and arms. The etiology is unknown. Children between the ages of four and twelve are more often affected. Immunity is produced by an attack, but those immune to erythema infectiosum

* From the Dermatology Clinic, Berkeley Health Center.



Fig. 1.—Reticular, maculopapular lesion of erythema infectiosum on the inner surface of the thigh.

will contract German measles, and vice versa. This proves that erythema infectiosum is not an abortive type of German measles, but a separate disease.

After an incubation period of from six to fourteen days, and without any definite prodromal symptoms, there appears on the face a rose-red efflorescence. The maculopapular lesions are confluent, giving to the face the appearance of a bright red blush with a circumoral pallor. The skin is swollen and hot, but there is no itching. The lesions on the face disappear in about four days.

On the second day of the disease the eruption appears on the trunk and limbs. The rash is always more pronounced on the arms and legs, and in some cases the body may be almost free from lesions. The character of the lesions on the arms and legs is diagnostic of the disease. Circinate, confluent patches appear until the whole arm or leg is covered. This gives a lacework, or reticular appearance which is very striking. Evanescence of the lesions is quite pronounced, the rash may fade out but reappear when heat or friction is applied to the skin. The disease clears up within ten days without desquamation or scarring. Complications or sequelae are absent. There is no fever and the blood and urine are normal.

In differential diagnosis one must consider first, scarlet fever. The appearance of the lesions of the face in erythema infectiosum might suggest that disease. It is quite easily ruled out, however, by the absence of fever and the normal throat and tongue. Second, measles would be considered because of the morbiliform appearance of the body lesions. Absence of conjunctivitis, coryza, and the Koplik's spots will, however, exclude that disease. The annular appearance of the lesions might suggest pityriasis rosea as a

third possibility. Absence of scales and the darker color of the rash of erythema infectiosum differentiates it from pityriasis rosea. Finally one must consider a dermatitis medicamentosa and a toxic erythema. The history solves the problem of a drug eruption, but I believe it would be impossible to exclude the diagnosis of a toxic erythema unless one were informed that the disease was contagious and epidemic.

In the Berkeley epidemic we saw ten patients, and undoubtedly there were others which were not reported to the health department. All of the patients were children of school age, living in the same neighborhood and attending the same school. No attempt was made to quarantine, and although the disease is contagious it must be very feebly so, otherwise there would have been a larger epidemic. No treatment was necessary with these patients as there were no severe symptoms of any kind, and the disease cleared up spontaneously. I am told that quarantine is not enforced in Austria, and children are allowed to attend school.

Figure 1 is a picture of a patient taken on the fifth day of the disease. You will notice the reticular lesions on the arm and leg which are typical of the disease.

CONCLUSION

Although erythema infectiosum is not a serious childhood disease and is only feebly contagious, it should be recognized and correctly diagnosed. A child should not be subjected to quarantine and the loss of time from school because an incorrect diagnosis of German measles or scarlet fever has been made. Physicians should be on the lookout for erythema infectiosum in California, as we now know that the disease is prevalent here. An epidemic skin disease of children characterized by maculopapular, reticular, evanescent lesions on the arms and legs should immediately suggest to the physician erythema infectiosum.

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THE LURE OF MEDICAL HISTORY

ESSAYS ON THE HISTORY OF EMBRYOLOGY*

II.

By A. W. MEYER, M. D.
Stanford University

SOME PUZZLING THINGS TO EARLY WRITERS

ONE of the most puzzling things to the earlier writers was the fact that many creatures and also they themselves existed as male and female, and that both sexes were essential for procreation. The sexual secretions such as the semen of the male and the catamenia of the female could, to be sure, not escape attention. Similar phenomena

* This is the second paper of a series of three articles. The first was printed in the December issue of *California and Western Medicine*, p. 447.

in other mammals also were obvious, and the idea that menstrual blood not only took part in the formation of the germ, but contributed its very substance, is a very old one indeed. It is mentioned in Susruta five hundred years B. C., and it lived on long after that in Aristotle and elsewhere. The male long was thought to contribute only the molding force and the female the substance.

These ideas seem fanciful to us, but even William Harvey concluded that the womb conceives the embryo as the brain conceives a thought. Harvey believed that coitus merely excites conception in the uterus as desire is generated in the brain, and the present use of the words conceive and conception is not without significance in this regard.

It is said that Pythagoras¹ regarded semen as a foam of the purest blood and as an excess of nutriment, an idea that persisted to the days of Harvey, but Pythagoras and others, such as Alcmaeon, Democritus, and Parmenides, held that woman also produces semen. This idea may have had a various origin, but since they knew the spawn of the female fish and the milt of the male, as well as the sexual discharges of amphibia, it is not improbable that the superficial similarity between the testis and the ovary and between the cervical, uterine and tubal secretions and semen, may have been partly responsible for this idea. The outward effects of castration both accidental and intentional, in both sexes, on animals and on the human male, must also have been known and it is likely that cases of sex reversal had been observed at this time.

The ancient Greeks did not stop at speculation or accidental observation, however, for Alcmaeon, a disciple and contemporary of Pythagoras, made observations upon the eggs of birds and concluded that the yolk was the formative and the egg white the nutritive material. The true rôle of these substances still was unsettled in 1868, when the great embryologist His considered the matter. Although Alcmaeon rightly regarded the brain as the organ of thought, he, as Aristotle, concluded that semen was a product of the brain and Parolles in *All's Well*, spoke of "spending his manly marrow in her arms."

Aristotle says Empedocles thought that sex was determined by the temperature in the uterus. If hot a male results, if cool a female. He believed in the primacy of the heart in development, perhaps because the pulsating heart or *punctum saliens* is such a conspicuous object in an incubating egg. This conception of the rôle of the heart in development persisted until the sixteenth century.

Anaxagoras rejected the idea of female semen, held also by Aristotle, perhaps because he believed that semen came from the blood, but Anaxagoras thought that male individuals arise from sperm produced by the right and females from that produced by the left testis, an idea rejected by Harvey, who thought that sex was determined by an internal, inherent agent wholly

¹ For the ideas of the ancient Greeks I am indebted mainly to Bloch.

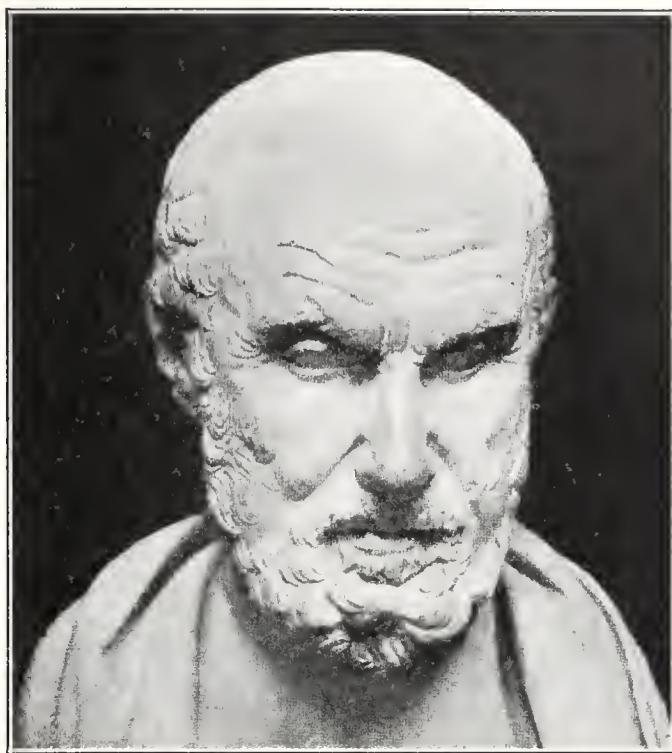


Fig. 1.—Hippocrates. (British Museum, second or third century B. C.)*

independent of the parents. The male and female were also once thought to develop in opposite sides of the uterus and a modified version of this idea was held also by Aristotle, and still is current among the laity of many lands today.

Democritus, a contemporary of Hippocrates, held that semen is a product of the whole body, an idea controverted by Aristotle who wrote: "For whereas they (the ancients) said that semen is that which comes from all the body, we shall say it is that whose nature is to go to all of it, and what they thought a waste product seems rather a secretion"; . . . "the ultimate secretion of the nutriment." Aristotle stated, however, that "there is evidence that the semen is in the catamenia, for, as said before, this secretion appears in the male at the same time of life as the catamenia in the female . . ." and continues to say that "the spermatric secretions" are produced by "the uterus and pudenda and breasts," including milk because it is a nutriment. Aristotle held that the loss of semen is exhausting because "the body is deprived of the ultimate gain drawn from the nutriment." The embryo to Aristotle was "the first mixture of male and female" and the ovum an oviform body found in the uterus, as it was also to Harvey. Hippocrates thought that maleness and femaleness are determined by the excess of male or female semen present at the time of conception. Aristotle, on the contrary, concluded that "the male is such in virtue of a certain capacity—and the female is such in virtue of a certain incapacity . . . to concoct the nourishment in its ultimate stage," that is, blood.

Although Anaxagoras thought that the head and brain develop first, perhaps because the latter is the seat of thought, Democritus held that the umbilicus is the first to form. This seems an

*The illustrations of Aristotle and Hippocrates are from Singer, *Greek Biology and Greek Medicine*.

amusing conclusion indeed, but the umbilicus was the place where nutriment entered and union with the mother was effected, and since Democritus inquired into the cause for the sterility of mules, we need not regard him as altogether benighted.

Although Plato lived somewhat later than Democritus, he believed that semen arose from the spinal cord and his speculations on embryology seem to fall far below those of his contemporaries. It hardly seems worth while to inquire further into them as expressed in his *Timaeus*.

DEFECTS IN THE PRE-HIPPOCRATIC EMBRYOLOGIC IDEAS

The chief defect in the pre-Hippocratic embryologic ideas lies in their detachment from sufficient purposeful observation and experiment. This is the great step forward shown in some of the Hippocratic writings, in one of which the surprising idea is expressed that all plants and animals have to some extent the same ground plan, and that one should therefore be able to apply the story of the development of the chick to that of other animals. That purposeful experiments in embryology were undertaken in that day is indicated by the fact that an unknown author of some of the Hippocratic writings tells us that one must put twenty eggs under a hen and take one out every day, beginning with the second day, and break it open in order to confirm the above idea. This procedure constituted a great advance, and it is extremely regrettable that the name of its author remains unknown to us and especially that the novel and fruitful conception of similarity between different forms of life fell upon sterile ground and remained unproductive for almost two thousand years until an Italian, Aldrovandi, recurred to it during the time of the Renaissance. After this it formed one of the most fruitful ideas in embryology.

It is puzzling why a Hippocratic writer thought that the earliest evidence of life in the human fetus felt by the mother, or quickening, occurred as early as the third month if the conceptus be male, but not before the fourth month if it be a female. Had these Greek writers but consulted the Greek mothers they could have obtained better information, and one wonders why they did not do so, unless it be that they mistrusted their own senses, and therefore also those of others as well.

OBSERVATIONS OF ARISTOTLE

Some of the observations and reflections of Aristotle upon the procreation and development of animals which are a continuation of those in the Hippocratic writings exerted a great influence on embryology up to the seventeenth century because of the authority of his great name. Indeed, some of the misconceptions found in Aristotle are still current today in other than lay circles. Aristotle, the master of them that know, as Dante called him, himself examined incubating eggs and his idea of equivocal or spontaneous generation of eels, some species of fish, insects, and worms, remained current regarding some forms of life until overthrown by the convincing

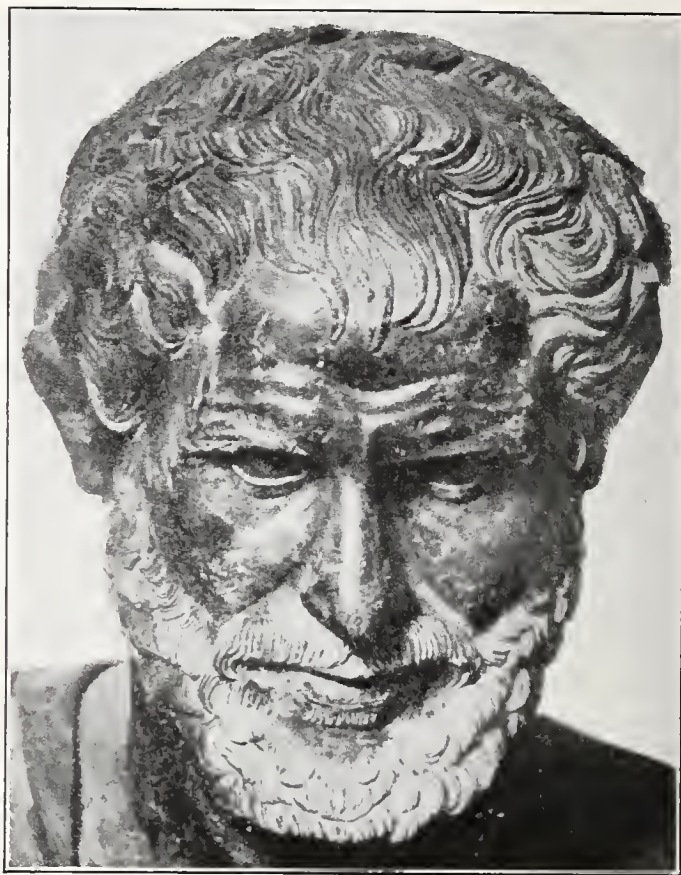


Fig. 2.—Aristotle. (From Hereulaneum. Probably work of fourth century B. C.)

experiments of Pasteur. Aristotle suggested four methods of the origin of life and believed that the organic could arise from the inorganic and also from heat. Since the ancients believed that the inorganic also had a soul, such a conception of spontaneous generation should not surprise us. Nor should we marvel that Aristotle believed in the occurrence of parthenogenesis in higher forms of life. He could not detect the two sexes in all forms of animal life.

Aristotle regarded menstrual blood, in a sense, as the equivalent of semen, and held that menstruation in women is comparable to estrus or heat in mammals, an error still found in contemporary literature. He also held that the menstrual flow is comparable to the eggs of other animals, and that eggs form only through the influence of the male, the female supplying the substance and the male the energizing power, somewhat as we of today still use the word "fertilization" and incorrectly regard the spermatozoon as merely supplying a ferment to the ovum to inaugurate cell division. It is true that parthenogenetic development can be started artificially in some ova by chemical means as Loeb showed for the sea urchin, or by spermatoc extract which presumably also is chemical, as Lillie discovered. This has not been possible in regard to the sperm but the two cells play an equivalent rôle in heredity.

To Aristotle the catamenia were imperfect semen which contained no soul because the male contributed the immaterial or controlling force. This idea was held also by Harvey, who believed, after Aristotle, that the cock contributes no sub-

stance but only an influence which makes the egg perfect and so initiates development. Aristotle carried this idea so far as to hold that the female partridge could be fertilized by the breath of the male, but it is not always easy to tell whether Aristotle is speaking upon the basis of observations or hearsay, as when he says that scorpions are born alive after the union of male and female. Anyone interested in Aristotle and Hippocrates will enjoy the essay by Singer.

Since the mode of reproduction of eels was not described till 1896 it is no wonder that Aristotle thought they had no generative organs. He never could find milt or roe and so concluded that eels arose from the entrails of the earth like certain worms. Aristotle was familiar with hermaphroditism in bees and with the occurrence of viviparous fishes. He knew the vitelline and allantoic vessels and the accompanying sacs and studied a twelve-day chick. He also knew something about the fate of the allantois and the yolk sac.

Since the medical school at Alexandria was known throughout the world for its enterprise in dissection of the dead, it seems as though the great men active there, such as Herophilus and Erasistratos, must also have made observations on embryology. There is no record of this, however, and one is left to pure surmise regarding this matter as regarding other things. The Alexandrians were supposed to have dissected the bodies of living men, but it has never been established that they did so. It does not seem unlikely, however, that some criminal might have been willing to take a chance on surviving an inspection of some part of his body under the knife of anatomists rather than suffer a cruel death after torture, and we must remember that dissection in that day meant something wholly different than now.

THE VIEWPOINTS OF GALEN

From Aristotle to Galen, during a period of about five hundred years, there does not seem to have been much of an advance in conceptions regarding embryology. Although Galen himself remained an authority in many things for a period of a thousand years, he added little of value to the ideas regarding prenatal life. He did, however, return to the idea of the existence of male and female sperm, and for a reason especially worth noting. This was because Galen found material which looked like semen in the uterine tubes of animals killed while in heat, and it is much to his credit that he carefully described this fluid. It should not surprise us that Galen confused the tubal, uterine and cervical secretions with semen, for long after Galen's day Haller and Kuhleman, who did some experiments in embryology and made many observations on hen eggs, could find nothing but white tough slime in the tubes and uteri in mammals two weeks after coitus; at a time when the conceptuses had already implanted and were several days old. However, Haller was extremely modern in many of his ideas, for he wrote: "The extremity of

the tube, therefore, surrounding and compressing the ovary in a prolific congress, is thought to press out and swallow a mature ovum, from a fissure in the outer membrane, from whence it is continued down by the peristaltic motion of the tube, to the uterus itself; which peristaltic motion begins from the first point of contact with the ovum, and urges the ovum downward successively to the opening into the fundus uteri, which is very manifest in brute animals. The truth of this appears from the constant observation of a scar or fissure in the ovary, which is produced there after conception; from a foetus being certainly found in quadrupeds, both in the ovary of the female, and in the tube; from the analogy of birds, in which the descent of the ovum from the ovary is very manifest. Yet we must acknowledge, that a true ovum was never found in quadrupeds, unless after a long time. It is probable, that at the time of conception, the true ovum is almost fluid, very soft and pellucid, and cannot be distinguished from the mucus with which the tube is filled; likewise, that it is very small, on account of the narrowness of the tube." Even later than this, Wolff, whose work finally established the doctrine of epigenesis, announced by Harvey, is said to have drawn the figure of a hen egg representing the developing embryo in a chalaza of the egg, fully thinking that he had seen it there. It is said that he later recognized his error and never made the drawing public. Since the idea that the sperm enters the bird egg through the chalazae and that the embryo begins to form there is a very old one, it is possible that Wolff was influenced by these older conceptions.

Galen called attention to the fact that what he regarded as comparable to pollution in the male occurs also in women, and wisely argued, as had Aristotle, that if the male and female did not, in some measure, both share equally in procreation, inheritance could not occur from both parents. He went on to say that if there were only male sperm there could only be inheritance through the male, and if only female sperm then only through the female.

Although Aristotle had regarded the ovary and testis as unimportant organs, Galen regarded them as important and as equivalent, and emphasized their rôle in the body as indicated by their loss in castration. However, Galen recurred to the older idea as to the origin of semen, believing that it came from the blood, because, as he reasoned, emaciation and exhaustion follow too frequent loss of it. He did not think that menstrual blood plays a rôle in procreation, but concluded that female semen formed the allantois and that coagulation of male and female semen in the uterus resulted in the formation of the chorion. He spoke of four stages in prenatal development, the first of which he called *geniture*. During this stage the conceptus was said to be unformed and white like semen. In the second stage it became a *foetus*, but was said to be without liver, brain, and heart although vascularized. Galen seems to have suggested no special name for the third stage, in which the heart, liver, and brain were well

formed, but in which the external features still were largely unformed. In his fourth stage of prenatal life, *puer*, all of the organs were well formed and the joints freely movable. From this it is evident that this stage occurred relatively late in fetal life.

On the basis of their origin, Galen divided all parts of the body into two classes. One class of organs which was said to arise from sperm was called *partes spermaticae*, and the other class, *partes sanguineae*, because he believed they arose from the blood. This classification of Galen continued in use for several hundred years, and well illustrates the danger of speculation.

Galen wrongly thought that the blood of the mother circulates in the fetus, but recognized and carefully described the foramen ovale and the ductus arteriosus and venosus, the existence of which was forgotten for a long time until they were rediscovered and described by Botalli and Aranzi about the middle of the sixteenth century.

Since Galen dissected many domestic animals, he often transferred the observations made upon them directly to man, thereby misleading many who followed him. This need surprise no one and we are daily doing this very thing when we apply, without qualifications, results obtained from experiments on animals to the human being. Because of his devotion to the dissection of animals, it is surprising that Galen does not seem to have studied incubated eggs or human conceptuses, both of which he probably could have obtained easily.

Stanford University.

(To be continued)

UTAH MEDICAL HISTORY: SOME REMINISCENCES*

By BELLE A. GEMMEL, M. D.
San Diego

IT became my pleasant pastime during the past winter while browsing through the family papers to segregate those portions in my father's handwriting which pertain to the early history of the medical profession in Utah.

It is not in my power to do justice to those brave souls whose lives were so intimately bound up with the struggles of a pioneer people, and it is quite beyond the scope of this paper to offer more than to refer to a few of the early leaders in medical practice in Utah.

These comments I shall confine to those men who, from 1857 to 1870, were more or less actively associated with my father, Dr. W. F. Anderson, in the practice of medicine in our State of Utah.

It would be impossible to separate the religious from the secular life of the early pioneers of Utah. One might ask what it is that prompts men to leave pleasant surroundings and family ties to

seek adventure in far fields. This reaching out for the unknown marks the progress of the human race, be it in the physical universe or in the realm of the mind.

Men and women of the Mormon faith braved the wilderness to settle in a new country. The very dangers and vicissitudes they encountered made them strong and united. The tenets of their religion attracted others in foreign lands, and so we find in this intermountain region a diversified colony of human souls, all more or less united by the common tie of self-preservation. A strong religious belief in a latter-day dispensation was an even greater force in holding them together as a people. It was to this community that my father came in 1857 from California.

1 1 1

Washington Franklin Anderson.—Washington Franklin Anderson was born in Williamsburg, Virginia, January 6, 1823, the son of Leroy Anderson and Hannah Wright Southgate. His father was a teacher of the Greek and Roman classics and of French and English literature. His early boyhood was passed in Mobile, Alabama, without events of unusual interest. He began his medical education at the University of Virginia in 1841, and finished his course at the University of Maryland in 1844. He was a resident student of the Baltimore Almshouse Hospital during 1842-44, where he had very unusual privileges in dissections, postmortem examinations, and studies in pathology. He practiced his profession in Sumpter County, Alabama, and in Mobile, until the outbreak of the Mexican War in 1846, when he joined the Alabama Regiment and served in the ranks as orderly sergeant of his company.

At the expiration of his service he was honorably discharged. He then removed to Yorktown, Virginia, where he practiced medicine until 1849, when he emigrated to California, arriving by way of Idaho and the Humboldt River at the height of the "Gold Rush." He practiced in Yolo County, California, until 1857. In 1854 he was made Worshipful Master of Yolo Lodge No. 81, Yolo, California, then working under a dispensation from the Grand Lodge of California, and in the following year was duly elected Master of the Chartered Lodge, in which capacity he served until his removal to Utah. He was also elected a magistrate in his township, and acted several years as Justice of the Peace. But these contacts did not seem to allay his longing for the law and order of a more civilized community where he could practice his profession among his peers. In June of 1857 he joined a company of Mormon converts and their leaders to return to the East by way of Salt Lake City; and his diary, written while crossing the Nevada desert, reveals a growing interest in the tenets of the Mormon faith, expounded in sermon and in conversation around the camp fire.

Peregrine Sessions was captain of the company. Joining with Hezekiah Thatcher and family across the Sierra, then with the Carson Company

* A paper read at the 1931 annual session of the Utah State Medical Association, Salt Lake City, September 9 to 10, 1931.

(William Jennings, Robert Sharkey, Cherry, Isaac Hunter, and other families), they traveled through Carson Valley, up the Humboldt River, the Raft River, and down the Malad, arriving in Salt Lake City the middle of August 1857.

In the autumn of 1857 he was appointed surgeon of Colonel Thomas Collister's Regiment, Nauvoo Legion. In 1860, during the administration of Governor Alfred Cummings, he was elected a member of the Utah Legislature from Salt Lake City. In 1868 he was appointed division surgeon of the Utah militia on the staff of Major General Robert T. Burton, under the territorial governorship of Charles Durkee. He held the office of quarantine physician for several years, and was chairman of the Board of Examiners of physicians desiring license to practice. In the early seventies he was elected president of the first medical society in Utah, with Dr. J. F. Hamilton as vice-president, Dr. Heber John Richards as secretary, and with Drs. Joseph and Den. Benedict, Allen Fowler, Williamson, Seymour B. Young, Taggart, and George C. Douglas as fellow members.

On his arrival in Salt Lake City in 1857, my father identified his interests with this community. In a conversation with Brigham Young he made it plain to him that he was not a convert to the so-called "divine" part of Mormonism, but that he admired the law and order that prevailed under his leadership. Brigham Young responded by slapping him familiarly on the shoulder, and assured him that his rights as a citizen would be protected as long as he wished to remain in Utah and practice his profession. This understanding between the two men was a decided influence in establishing a sympathetic attitude both toward the church and toward the people of Utah.

His education and naturally sociable disposition attracted to him men of like character. He was thirty-four years old at this time and lived alone in a small house "one door south of Neibauer's match factory," as his professional card states.

Undoubtedly a close supervision was exercised over all newcomers to Utah in those days. Recognizing this, he wrote to Brigham Young asking permission to continue meetings for recreation and mutual improvement; and in a letter from the President dated November 9, 1861 (now in my possession), this permission was granted. His sociability and gayety of spirit endeared him to young and old alike. He encouraged educational pursuits and became a leader among the young men of the community. The young physician just entering the profession always found a warm heart in my father, who had an instinct for guiding and encouraging the newcomer. By nature a teacher, he was quick to recognize ability; on the other hand, he was prompt to condemn ignorance and charlatanism.

About the year 1869 suit was brought against Doctor Anderson for malpractice, in the sum of \$50,000. Major Hempstead was his attorney. The following is a verbatim description of the case:

On the 20th of July, 1867, I received a message to visit Wm. Jenne, of Wanship County, Utah. Found him suffering with a comp. dislocation of the ankle joint with fracture of astragalus, and received the following history of the accident from his friends. The Indians had been committing depredations on the settlements and it was thought best to conciliate them with presents of beef. Young Jenne was called on to ride out to the herd and bring up a steer for the Indians. Jenne rode a wild young horse that bucked and threw him with great force among the rocks, the horse falling on the rider's leg.

Jenne was brought to his residence, not a great distance, by his friends. I saw him about 24 hours after the accident. In surgical parlance, the injury was called a compound comminuted fracture of the ankle joint. The joint was torn asunder, the astragalus, (a short thick bone on which the bones of the leg rest and which forms the lower half of the ankle joint) was broken in half. One-half of the astragalus was hanging to the joint by a portion of the lateral ligament which was entirely ruptured and exposed to the air. There was fracture of the lower end of the fibula, and much contusion and laceration of the muscles and tissue surrounding the joint.

The patient was put under chloroform, the injury thoroughly examined and explained to his friends, who were fully convinced that amputation was necessary. The operation was then performed, and some hours afterwards I left Jenne in good condition and returned home, having given directions to attendants in relation to treatment, until I should see him again. I visited Jenne again on the 26th of July and found everything going favorably with the wound and his general condition good. On the 29th I was informed of his bleeding, but, owing to press of business could not go and sent styptics to stop bleeding. Visited him again on the 31st of July and found the stump sluffing, and mortification extending up above the knee. After consultation with his friends, dispatched a telegram for Drs. Bernhisel and Tait to come out and consult as to amputation at the thigh. Dr. Tait came the same night and after consultation with him I immediately performed amputation at the thigh, Tait assisting. On the next day the patient had rallied somewhat from the shock of the operation, and I returned to the city. Visited Jenne again August 8th, found him doing well and returned to the city. Visited him again August 30th and found there had been a slough at the end of the stump and about three-quarters inch of bone exposed. Saw him October 10th in the city and removed the dead bone, Drs. Bernhisel, Tait, Groves, and H. J. Richards assisting. Visited Jenne daily until October 24th, when the stump had entirely healed.

Argument and Miscellaneous Questions Brought Up in Course of the Trial. . . .

A verdict of "No cause for action" was given by the court.

Two Statements.—The following are copies of two bills rendered in other cases:

Charles Oliphant.....	to W. F. Anderson Dr.	
Sept. 23. To reducing dislocation and adminis-		
tering chloroform		\$6.00
To 7 visits thereafter		7.00
		\$13.00
Br. Littlefield		
1860		
To W. F. Anderson M. D. Dr.		
To medical advice incl. visit child, etc.		\$2.00

The last seventy-five years marks an epoch in the progress of the medical sciences. In the fifties nothing was known of bacteriology nor of the mode of transmission of contagious diseases. Research in public health was then in its infancy. Bedside observation and postmortem dissections formed the basis of clinical and pathologic study.

Physicians were groping for the newer knowledge of bacteriology and the allied sciences to explain the causes of disease. In my father's armamentarium stood bottles of cinchona sulphate, (McKesson and Robbins), brought to Utah in 1857 by Johnson's Army. Calomel, potassium iodid, the salicylates and bromids, tincture ferri chlorid, and the opiates were the *sine qua non* of medical practice. Cardiac and renal dropsy was reduced by large doses of cream of tartar and jalap, with digitalis to control the heart's action. Close bedside study and the personal handling of remedies gave a skill in therapeutics that may well be envied by the physicians of today. The study of family characteristics and traditions, and day and night attendance at the bedside were all in the day's work.

Cases of harelip, fractures, stone in the bladder were frequently met with. The first ovariectomy done in this region was performed by my father in 1882 under the carbolic acid spray, the best antiseptic precaution known in that day, and the patient made a good recovery. Before that time the abdominal cavity was a sealed region not to be invaded by the surgeon's knife. Rheumatism, with cardiac and renal complications, was prevalent; tuberculosis and malaria were introduced from without, though my father records cases of tuberculosis among the local Indians. Sick Indians were taken care of through the Government agencies, though he often treated cases of rheumatism among these people. He kept an articulated skeleton in the back room of his office, and I well remember the terror it inspired in some of these stolid visitors when, waiting their turn for attention, they caught a glimpse of it and heard the rattling of the bones.

"A Plea for a More Exact System of Clinical Observation and Some Advantages of a Record of the Same" is the subject of a paper presented by him at one of the first meetings of the medical society. In this paper he urges physicians to assemble and present bedside records for mutual study. This period seems to be a turning point in the ranks of the medical profession throughout the United States, in the building up of the science of sanitation, and in elevating our profession to a position of dignity and usefulness. Descartes wrote in the eighteenth century, "If it be possible to perfect mankind, the means of perfecting will be found in the medical sciences."

Just here I would call attention to the debt we owe to the engineering profession in maintaining public health today. There were then no restrictions or regulations governing the supply of water and milk. Drainage from farm and domicile was apt to be into the nearest stream, and outbreaks of typhoid, scarlet fever, and diphtheria in its most virulent form were of annual occurrence and were combated with the best means at hand, but the physician was helpless to prevent occurrences of these diseases.

Two physicians whom my father frequently mentions in these early memoirs were Dr. William France and Dr. John M. Bernhisel. Of the

former (William France) very little is known. He had an impediment in his speech, caused by a cleft palate (or perhaps by an injury to his nose). He was not a robust man. He excelled in surgery. The following obituary is copied from the *Deseret News* of March 21, 1860, page 24:

"*William France, M. D.* Died at his residence in Salt Lake City, Tuesday, March 20th, 1860, at 6 o'clock a. m. . . ."

John M. Bernhisel.—Doctor Bernhisel's career in Utah is well known. However, my father's tribute to him should certainly find a place in the medical history of Utah, as it is founded on a personal acquaintance and preserves in a marked degree his characteristics and his religious tendencies. He was a gentleman of culture and traditionally a Whig in politics.

He was a member of the original board of regents of the University of Deseret, Orson Spencer being first chancellor.

In his fifty-third year he was elected delegate to Congress from the territory of Utah (1851), reelected in 1853 and again in 1855.

In 1852 he selected books for the Territorial Library, \$5000 having been appropriated for this purpose.

Doctor Bernhisel lived on the northwest corner of North Temple Street in a plain two-story house which somehow resembled the uncompromising personality of its owner. I remember several broad sandstone steps which formed the approach to the front door; the iron knocker whose tones reverberated through the empty hall as on one occasion when I was with my father he struck three well-timed strokes on it, and finally the cautious opening of the door by the old doctor himself, peering at us through his spectacles, for he was very near-sighted. He was clad in dressing gown and carpet slippers and had a book in his hand. Evidently we had disturbed him at his reading, but his face lit up in pleasant recognition and he invited us into one of the large, rather bare rooms of his house.

The ethics of the profession were carefully observed in those days and a consultation between my father and Doctor Bernhisel was an occasion of considerable formality. His remark on leaving the sickroom on one occasion was: "Cultivate, my dear madam, as far as possible, a cheerful, happy and contented disposition, and all will be well"; which became a byword in our family when as children we teased each other in case of illness.

The practice of bleeding had been included in the doctor's medical training and he was an ardent supporter of this method of relieving a patient of his ills. On one occasion, when considerable blood had been taken from the arm of a patient, and my father mildly protested against continuing the procedure further, Doctor Bernhisel interposed "Bleed her to death," meaning, of course, "Bleed her until she faints." Such were the methods of some of those "doctors of the old school."

As I remember him, Doctor Bernhisel was rather a formidable person. On ordinary occasions and for professional visits he wore a long frock coat with stock collar and high silk hat, after the fashion of a doctor of the old school, which indeed he was.

He taught his children Latin, and was a stern disciplinarian. . . .

John Milton Bernhisel was born June 23, 1799, at Lloydsville, Perry County, Pennsylvania; was graduated from the University of Pennsylvania April 6, 1827. He moved to Nauvoo in 1842 and died in Salt Lake City on September 28, 1881.

Medicine, like music, seems to be a family tradition and this history of early pioneer physicians in Utah would be incomplete without mention of the Richards family.

Education and close application to scientific principles are the important factors that rescue the healing art from the hands of charlatans and impostors. The history of the Richards family in Utah is one of brilliant success in the field of medicine; may a more facile pen than mine make the record of their notable achievements in the profession.

Appended below is the obituary of H. J. Richards, which gives the outline of his life and work:

Dr. Heber John Richards.—Born in Manchester, England, October 12, 1840. Parents, Dr. Willard Richards and Jennetta Richards. Father married while on a mission to England. Mother died in Nauvoo when Heber John was four years of age.

In 1848 he came to Utah with his father and the pioneers. His life was one of hardship. When but fourteen years old his father died.

Married Mary Julia Johnson April, 1862. Left for a mission to England April 30, 1863. Away three years, traveling in Europe one summer. Returned in April 1866.

November 10, 1867, left Salt Lake City for New York, being sent by Brigham Young to study surgery and carrying a letter of introduction from President Young to Dr. Lewis A. Sayer. Attended Bellevue Hospital Medical College 1867-68, 1868-69. Left New York in April 1869, arriving home in May. He was associated with, and studied under, Dr. W. F. Anderson until November, then went into the Co-operative Drug Store to study medicine and assist. Returned to New York August 1870, studying there until March 1871.

From the early Church records the following is gleaned:

Willard Richards (the father of Dr. Heber John Richards), sixth son of Joseph and Rhoda, was born in Hopkinton, Middlesex County, Massachusetts, June 24, 1804. He devoted his leisure time to the acquisition of knowledge.

In February 1827 he began lecturing on electricity and other scientific subjects throughout the New England States. For several years he devoted much time to the study of the Healing Art

and delivered many instructive lectures on that subject.

In 1834 he entered the Thompsonian Infirmary in Boston and practiced under the direction and instruction of Dr. Samuel Thompson. In 1835, at the request of Mr. Albert P. Rockwood, he went to Holliston, Mass., and delivered lectures on the Botanic or Thompsonian practice of medicine, which created much excitement there and in the surrounding towns.

He removed to Holliston and practiced with success for one year, during which time he resided with Mr. Rockwood.

4476 Hortensia Street.

CLINICAL NOTES AND CASE REPORTS

CHANCER OF FEMALE MEATUS

WITH TOTAL OCCLUSION AND NEOARSPHENAMIN STOMATITIS

REPORT OF CASE

By HERMAN FEINBERG, M. D.

San Francisco

IN presenting this case report it may be stated that it is very interesting and rare to observe an occlusion of the meatus due to a chancre and producing a retention of urine. The stomatitis following the use of neoarsphenamin is also an unusual complication.

REPORT OF CASE

A. E., a white female, age twenty-five, on June 3 complained of "knots" in both inguinal regions and dysuria. A careful history found the patient also suffering from occipital headaches and general malaise. The patient complained of these symptoms four days previous to her visit to my office.

Chancre of the Meatus.—Pelvic examination failed to reveal a lesion or inflammatory condition of the meatus, labia, fourchette, clitoris, vagina, or cervix, but there was a marked bilateral inguinal adenopathy. Smears were negative for gonorrhea. The Wassermann test (Kolmer and Craig) was negative and so was the urine. It was not possible to determine the etiologic factor producing the inguinal adenopathy, but from the above history the case was diagnosed as lues.

The patient was asked to return in five days for another Wassermann. She left town and returned on June 10 (eight days later) with a typical chancre of the meatus. While out of town the patient had to be catheterized because she had been unable to void for eighteen hours. The doctor she visited had to pass a sound and then a catheter in order to remove the urine. The same procedure had to be instituted by me to relieve her of the retention of urine. Some resistance was encountered in passing a 15-F sound through the central necrotic area of the chancre in order to enter the urethra, and then a glass catheter was inserted.

The chancre, which was markedly indurated and about the size of a penny, covered the meatal lips completely. There was a distinct and marked eversion of the urethral orifice, giving the effect of a rolled border. A darkfield examination revealed numerous *Spirocheta pallida*. The Wassermann taken at this time was four plus.

Neoarsphenamin Stomatitis.—The neoarsphenamin stomatitis deserves a few lines of discussion, as it is an unusual complication. Antiluetic treatment was administered the following day. On June 11 the patient received .45 gram neoarsphenamin intravenously. On June 13 the patient telephoned complaining of a burning, sore throat, and that she had expectorated two pieces of "black meat" which upon examination proved to be pieces of exfoliated necrotic mucosa of the hard palate. The lips, gums and pharynx were dry, hot, and markedly hyperemic, particularly the lips and gums. The lips were involved more than the gums, palate or pharynx, as they were cracked, scaly, itchy and burning. There was no general reaction. Sodium thiosulphate to the amount of .75 gram was administered intravenously and the patient noticed an improvement in her condition the following day. Another .75 gram was given on the third day. Two days later the entire mouth was normal. Citrocarbonate, Dobell's solution for a gargle, and four per cent mercurochrome as a throat swab had also been used. Neoarsphenamin was discontinued in favor of bismarsen, which the patient is receiving two-tenths gram intramuscularly twice weekly without any local or general reactions in evidence.

Stokes¹ states: "The stomatitis of mercury differs from the neoarsphenamin stomatitis in being moist, fetid, gray, membranous, and spongy. The stomatitis, associated with arsphenamin, may appear alone, in association with aplastic anemia and purpura, or with a generalized exfoliative

dermatitis. The association of stomatitis with aplastic anemia following neoarsphenamin seems to be more than coincidental and to constitute a definite toxic syndrome."

In conclusion I wish to stress the point that when an inguinal adenopathy cannot be accounted for, endoscopy should be done, as evidently this particular case had a minute chancre at the urethral orifice which was the cause of the dysuria and inguinal adenopathy.

453 Flood Building.

REFERENCE

1. Stokes: Modern Clinical Syphilology, p. 309. Saunders. 1928.

STRANGULATED DIAPHRAGMATIC HERNIA IN AN INFANT

By HENRY JOHNSON, M. D.

AND

ALBERT G. BOWER, M. D.

Glendale

THE patient was a strong, apparently normal, full-term infant, born at two o'clock in the morning, of a primiparous mother by version and extraction without unusual difficulty. The nurse in charge of the infant noted immediately that when the child was placed in its crib it became somewhat dyspneic and cyanotic. When picked up and held nearly upright, these symptoms disappeared only to reappear when it was replaced in its crib.

A careful physical examination disclosed no heart lesion or other pathological condition that would account for this behavior, so it was decided to wait a few hours to see what occurred. On the morning of the following day it was decided to x-ray the chest in order to rule out any enlarged thymus. These pictures disclosed a moderately enlarged thymus, and also some



Fig. 1.—Flat plate with intestinal gas marking left side of thorax.

Fig. 2.—Catheter used to give barium enema, showing colon in pleural cavity.

Fig. 3.—Barium test-meal, showing intestines in left thoracic cavity.

strange and unusual markings in the left thorax, suggestive of the appearance of gas. A barium enema corroborated this.

Accordingly a tube was introduced through the nostril into the stomach, and a few ounces of barium milk were given by lavage. In due time pictures were taken and the results were startling. All of the small intestines, with the exception of a small portion of the duodenum, as well as the ascending and a portion of the transverse colon, were found to lie in the left pleural cavity.

It was decided to operate, and forty-one and a half hours after birth, the child was placed on the table. The surgery was performed by Dr. Henry Johnson, assisted by Dr. Raymond T. Wayland. Under ether anesthesia a high abdominal incision was made and the hernial opening located in the lower surface of the dome of the diaphragm. A fair-sized rubber drainage tube was introduced along the bowel through this opening into the left pleural cavity to admit air as the bowels were delivered. Gentle traction made on the colon failed to deliver the bowel. Before it was released into the abdomen sufficient force had to be exerted to tear the bowel loose from the pleura and lung to which it had been firmly adherent. The colon was strangulated, but fortunately color returned before the operation was completed and no resection was necessary. A portion of the mesentery and omentum were also adherent in the pleural cavity. Again, fortunately, hemorrhage was not excessive. The edges of the rent in the diaphragm were freshened and closed with chromic gut. The abdominal opening was closed in the usual manner, sealed with collodion, and hot Epsom salt compresses applied to the abdomen.

The baby was put to the breast four hours after operation had been performed, and every four hours thereafter. After the first two feedings, coffee-ground vomitus occurred, but from that time forth both its feeding and convalescence progressed in an uneventful manner. The child has developed as a normal healthy infant, now weighing twenty-six pounds at the age of nine months, and has never had a day of illness.

136 North Central Avenue.

PSEUDOMEMBRANOUS ANGINA: DUE TO PNEUMOCOCCUS

REPORT OF CASE

By F. M. SPRAGUE, M. D.
Fresno

SOME recent reports in the medical literature, either again or originally, have called attention to the fact that the pneumococcus must be considered among the infectious agents in anginal disturbances that exhibit a pronounced pseudomembrane on tonsil and throat tissues.

This following case is reported not only for its rarity and importance from the early diagnosis and treatment viewpoint, but also because it resembled a typical lobar pneumonia; that is, as to onset, course, duration, termination by crisis with

profuse perspiration and rapid recovery, with negative findings (clinically) in the lower air passages throughout the febrile and convalescent periods.

REPORT OF CASE

Patient.—Lorraine F.; age six years; school girl.

Chief Complaint.—Sore throat of sudden onset thirty-six hours previously; high temperature (102-105 Fahrenheit); dysphagia; and marked, painful unilateral adenitis.

Personal History.—Negative, except for an attack of tonsillitis about one year ago. Has had some mild upper respiratory infection, with cough, for past two weeks. There were occasional cases of diphtheria among school children in the city at this time, but no known exposure of patient.

Physical Examination.—Positive findings were limited to a swollen left tonsil, studded with infected follicles, and accompanied by a moderately inflamed throat and a pronounced cervical adenitis of same side. Clinically, the lung areas were negative, and so remained at all times the patient was under observation. Throat culture: (twelve-hour) negative for diphtheria bacilli. Growth showed pneumococci and streptococci, with the former predominating.

Progress.—High temperature continued and on third day of illness the follicular tonsil exudate became confluent; then rapidly assumed a pseudomembranous type and extended well over soft palate and onto the opposite tonsil, with added right cervical adenitis. Diphtheria antitoxin, ten thousand units, was given intramuscularly, with some clinical relief of symptoms in twelve hours, but with no apparent effect upon the membrane or temperature. Throat culture, direct from membrane, again negative for Klebs-Löffler bacilli, but grew a pure culture of pneumococci, the type not determined. On the fifth day of illness the fever ended by crisis, with accompanying profuse perspiration, and the local lesions began to clear rapidly; and within twenty-four hours after the crisis persuasion was necessary to keep the little patient at rest in bed.

Early Marriages in New York.—An analysis of the marriage records of the State outside of New York City for 1930 shows that in 230 marriages the bride was under 16 years: 33 brides were 14, and 197 brides 15 years of age. The distribution of the ages of the grooms whom these girls married was as follows: under 20 years, 46; 20-24, 132; 25-29, 32; 30-34, 13; 35 years and over, 7. The youngest groom was 16, the oldest 51 years of age. The median age of the grooms of the 14-year-old brides was 22.8 years; of the 15-year-old brides, 21.3; and for the combined ages, 21.5 years.

The assertion is often made that child marriages are largely confined to that section of our population which is of foreign birth or of immediate foreign origin. The figures, however, do not support this statement. Of the 230 brides, 10 were foreign-born: 5 natives of Italy and 5 of Canada. Of the 220 native-born brides, 153 were of native parentage, 12 of mixed parentage, and 55 of foreign parentage. Relating these numbers to all marriages in the several nativity groups, it is found that they represented 6 in 1000 of the native-born brides of native parentage, the same proportion in the group of native-born brides of foreign parentage, while among native-born of mixed parentage only two brides in one thousand were 14 or 15 years old.

Among the grooms, 47 were foreign-born: 23 were natives of Italy; 6 of Canada; the remaining, natives of twelve different countries. The native-born grooms were divided according to parentage as follows: native, 129; mixed 23, foreign, 31.—*Health News.*

Be prompt at your appointment; that is always possible. Many are always late at a consultation; few miss a train. There is no excuse for tardiness.—Osler, the Teacher.

BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussion invited.

THE TREATMENT OF HEAD INJURIES

On General Treatment

HOWARD W. FLEMING, M. D. (384 Post Street, San Francisco).—From a therapeutic point of view, head injuries may be divided into three classes. Fortunately the majority of such patients in one group recover satisfactorily without radical treatment. A second group consists of patients who have suffered such serious brain damage that therapeutic efforts are futile. In addition to the above, there is a third group of patients for whom the therapy instituted largely determines the prognosis.

Intelligent treatment is predicated on a knowledge of the existing disorder. Increased intracranial pressure is the most frequent complication in borderline cases; it must be diagnosed early and treated correctly. In head injuries, increased intracranial pressure is caused by an excess of free or fixed fluid. Bleeding may occur into the ventricles, into the brain substance, or into the intradural spaces; or it may be extradural. Cerebrospinal fluid, misplaced or in abnormal amount, may cause such pressure that surgical intervention is indicated. Naffziger directed attention to those patients in whom rents in the arachnoidal membranes allowed fluid to collect in the extra-arachnoidal spaces. Here it is not absorbed and may accumulate in large amounts, causing great pressure.

Fixed fluid in the brain substance itself usually is referred to as cerebral edema. All tissue, and especially brain substance, will absorb fluids when deprived of oxygen. Trauma causing contusion of the brain impairs the normal blood supply and venous return.

An early recognition of increasing intracranial pressure is essential. The same careful observation given the patient who is thought to have an acute abdominal condition is even more necessary in critical head injuries. Undue procrastination frequently sacrifices the opportunity for relief of pressure, and prevents recovery. Increasing stupor, secondary loss of consciousness, onset or increase of paresis, slowing of the pulse and respiration, increase of blood pressure or, more particularly, increase of the pulse pressure, are danger signals.

Spinal puncture is an excellent diagnostic and therapeutic measure. There is some risk, but in experienced hands I feel that the risk of this procedure is far outweighed by its advantages. It is within the realm of possibility that, in a patient with high intracranial pressure, a herniation through the foramen magnum may result from

spinal puncture. This is a real danger in cases of chronic intracranial pressure and particularly in those associated with an internal hydrocephalus caused by a lesion in the posterior fossa.

Spinal puncture gives fairly accurate information regarding the degree of intracranial pressure and a manometer reading always should be made. The color of the fluid is some index of the amount of bleeding. Cell count and Wassermann tests may explain unusual complications.

A single spinal puncture, or repeated punctures, may tide a patient over the period of increased intracranial pressure. This is true in those patients in whom there is an excess of free fluid. If, however, the patient does not show a very definite improvement following each spinal puncture, other methods of therapy should be tried.

The pressure resulting from cerebral edema is best relieved by other than surgical methods. Magnesium sulphate by mouth or rectum, and hypertonic glucose or salt solution intravenously give good results. Repeated injections of glucose solution solve the problem of nourishment as well.

Signs of continued or increasing intracranial pressure, in spite of the therapy suggested above, indicate the advisability of operation. Procrastination beyond the period of compensation will sacrifice almost every chance of recovery. Pressure symptoms, superseded by rapid pulse and falling blood pressure, signal the onset of decompensation.

When the problem is one of intracranial pressure and unrelieved by simpler measures, subtemporal decompression is then in order. Selection of the side must be determined by the summation of the clinical evidence. The visible evidence of injury and x ray findings should not outweigh positive neurological signs. The right side is selected unless definite findings suggest the left. Great care is necessary to avoid contusion of the brain in areas that may increase a patient's permanent disability. Only too frequently openings are made high in the parietal area rather than low in the temporal region, with resultant paresis and epilepsy.

Extensive removal of bone is usually neither necessary nor advisable. The chief concern is to arrest bleeding and effect adequate drainage of free fluid. A rubber dam drain left beneath the temporal lobe for forty-eight hours frequently will give satisfactory relief of pressure in amenable cases.

Operation is indicated for those patients with compound or simple depressed fractures of the skull if seen early and if the patient is not in

shock. Surgical care should not be attempted unless proper facilities are available to debride the wound and repair the dura. Novocain locally usually provides adequate anesthesia.

A frequent complication in those cases with fracture through the base of the skull, opening middle ears or sinuses, is meningitis. Attempts to sterilize external cavities by irrigation with antiseptic solutions frequently defeat their purpose. Only too frequently contaminated substances are washed into the intradural spaces. Dry, sterile cotton, plugged lightly into the ears, is usually all the care necessary. When sinuses have been opened, every effort should be made to keep the nares open, and promote drainage. Sneezing, coughing, and efforts that increase intrasinus pressure should be guarded against.

Many surgeons feel that, in patients in whom there is evidence of communication between intradural spaces and frontal sinuses, it is advisable to place a drain between dura and bone as a prophylactic measure. Certainly after the onset of meningitis, it is proper to attempt to drain the local focus as a therapeutic measure.

The problems incident to the care of head injuries are too numerous to permit anything more than their suggestion in a discussion such as this. It is imperative, however, that we be alert to recognize those symptoms and signs of disordered function that may be influenced by proper care.

* * *

On Treatment of the Ophthalmologic Complications

FREDERICK C. CORDES, M. D. (Fitzhugh Building, San Francisco).—Many of the ophthalmological complications of head injuries, such as choked disk and the various fractures about the orbit, are an intimate part of the general picture and their treatment belongs to the neurosurgeon. There are, however, certain conditions that require ophthalmologic consideration and therapy.

The ocular complications of head injuries, according to Roemer, can be divided into six main groups: (1) hemorrhage into the orbit and exophthalmos; (2) emphysema of the orbit; (3) fractures of the bones of the orbit in connection with fractures of the base of the skull; (4) lesions of the optic nerve in connection with fractures of the base of the skull; (5) lesions of the central optic tract; (6) paresis of the ocular muscles.

Orbital hemorrhages and exophthalmos frequently follow severe contusions to the bones of the face and skull. The bleeding may come from lacerated vessels in the orbit or from fractures in the orbital wall. This blood at times forces its way into the orbital fat, Tenon's capsule, into the vaginal space of the optic nerve or beneath the periosteum of the bones. These hemorrhages also occur in fractures of the base of the skull. In fact, in many cases this finding is diagnostic of basal fractures. The hemorrhage produces discoloration or ecchymosis of the lids except where

the blood is confined beneath the periosteum. The exophthalmos is usually immediately present and is accompanied by limitation of motion. If the proptosis is marked, it can prevent the closure of the lids and expose the cornea to the danger of keratitis lagophthalmos. Vision may be impaired, or even lost, if the hemorrhage is so great as to exert pressure on the optic nerve or the ophthalmic vessels.

Treatment in orbital hemorrhages depends somewhat upon the severity of the condition. As a rule, the blood undergoes spontaneous resorption. In subperiosteal hemorrhage, the absorption may be greatly prolonged. In such cases a pressure bandage is indicated. In the immediate stages continuous ice compresses may help control the bleeding, while later, heat encourages its absorption. In recent injuries accompanied by extreme exophthalmos, where lagophthalmos endangers the eye, incisions or puncture have been recommended to evacuate the blood.

There are three types of emphysema of the orbit; the purely palpebral, the orbitopalpebral, and the orbital. The palpebral *per se* is a rare condition seen in fractures of the lachrymal or nasal bones. The orbital or orbitopalpebral is much more common. Air enters through fractures of the lamina papyracea and is confined behind the septum orbitale, producing an orbital emphysema.

Should a portion penetrate beneath the skin the orbitopalpebral type is produced. The lids are swollen in all three types, but exophthalmos is present only in the orbital type. Besides swelling, we have typical findings of air crepitation to palpation. An emphysema always means a fracture of the orbital wall as it occurs only when a communication has been established between the orbit and the nose or its accessory sinuses.

The course of orbital emphysema is usually benign. The only treatment indicated is a pressure bandage and the avoidance of any act, such as blowing the nose, that might cause increased air pressure within the nasal cavity. With a pressure bandage, the emphysema, as a rule, disappears within a few days.

Fractures of the upper wall of the orbit are found in association with those of the frontal bone and the base of the skull. The supra-orbital nerve is occasionally injured in fracture of the upper orbital margin. Fissures of the roof of the orbit frequently extend into the optic foramen. Fractures of the lower margin of the orbit may injure the lachrymal apparatus. Blows on the lower orbital rim may fracture the maxilla or zygoma and extend to the floor of the orbit so that the orbital contents lose their support.

The treatment of these fractures is surgical and depends upon the nature of the injury. In one such patient who was referred to Dr. Howard Fleming, it was possible to replace the fractured lower orbital rim and floor by working through the antrum.

Traumatic exophthalmos is well known and follows violent contusion on the bony margin of the orbit or its immediate neighborhood. Such blows may fall on the nose, forehead, malar bone, cheek, or the side of the head. The characteristic result is that the eyeball recedes into the orbit, giving the appearance of an artificial eye. As a rule the margin of the orbit is deformed with scars in the surrounding skin. The factors combining to produce this condition are enlargement of the space within the orbit caused by the separation of the fragments of bone, displacement of orbital fat through a gaping wound into one of the accessory sinuses or by a pressure atrophy. The deformity is permanent and treatment is of no avail. If the patient is troubled by diplopia, it may be necessary to cover the one eye by a shield or patch.

The principal damage to the optic nerve in head injuries results from fractures of the optic canal. These frequently follow blows on the frontal bone. The outstanding symptom is loss of vision, and this reduction is usually regarded as due to a fracture of the bony canal with hemorrhage into the sheath or to actual laceration, or even severance of the nerve itself. Pressure from the anterior clinoid may also produce the condition. Field defects are not typical in these cases, but a section defect extending into the macula is almost pathognomonic.

If the optic nerve has been torn across, direct and consensual pupillary reaction are absent. If the symptoms are due to pressure of blood, the pupillary reactions return as absorption occurs.

There have been no reports of the treatment of these cases. O. and H. Barkan,* in a fairly recent paper, state that the Kronlein operation has been advised to remove splinters of bone and relieve the pressure from hemorrhage. They also report a suggestion from Doctor Naffziger, "that the best method of approach would be a subdural one, as for pituitary tumor, looking for a fracture of the roof of the orbit on the way. This would enable one either to approach the anterior clinoid or proceed through the roof of the orbit to the optic nerve and foramen, as the case might be."

In addition to the primary injuries to the optic nerve, secondary atrophy may follow choked disks, complicating head injuries.

All portions in the course of the optic fibers may be affected in cases of cranial injury. The perimetric fields often give valuable information as to the site of the lesion. Treatment is of no avail in direct trauma to the pathway. If due to hemorrhage, some return of function may follow absorption. The use of potassium iodid has been recommended as a possible aid.

Nerves supplying the ocular muscles may be traumatized in head injuries. The abducens, as is well known, is the most frequently involved due to its long course along the base of the skull.

Occasionally associated with these are injuries to the facial nerve. The oculomotor is rarely involved in skull injuries.

Therapeutically, little can be done in these cases. A troublesome diplopia can be relieved if present by covering the affected eye with a shield or ground glass.

Potassium iodid, in gradually augmented doses, may be useful. The faradic or interrupted galvanic current has been recommended in these lesions. The negative pole is placed, daily, over the closed eyelids for five minutes at a time. This should be continued as long as any improvement is apparent. Where improvement takes place it often proceeds so slowly that a year lapses before the maximum recovery has taken place.

Where a permanent paresis or paralysis of the sixth remains, the condition can be greatly improved cosmetically and functionally by surgery. The outer halves of the superior and inferior recti muscles are transplanted into the insertion of the externus. Following this the eyes will be straight in the primary position, but the abduction will naturally be limited.

There is no treatment for permanent involvement of the third nerve excepting in an isolated lesion of the levator palpebrae. In this condition one of the various ptosis operations may be recommended.

* * *

On Plastic Surgery in Head Injuries

W. S. KISKADDEN, M. D. (1930 Wilshire Boulevard, Los Angeles).—The average physician is not prone to think of head injuries in any terms other than those of fracture and concussion. However, damage to the face, either from lacerations or fractures, may be considered a prominent subdivision of our subject, as is attested by the importance placed upon such facial injuries by laymen and the many high awards from sympathetic juries.

The plastic surgeon often contacts these patients either on their way to court for settlement or on their return therefrom. Examination will often disclose scars which are so slight that we can safely prognosticate a complete fading and disappearance within one or two years' time. But rather too often we find a wide hypertrophied or even keloidal scar, the edges of which are either inverted or everted and lined and crossed with stitch marks. If, for instance, the scar be around the mouth, we may find the mucous membrane pulled into the scar and the mouth distorted. Again, the eyebrow may be no longer a smooth and graceful curve, but have, on the contrary, an unpleasant break or hump in the curve, due to haphazard and careless suturing. Glass and other foreign material from the street will often be buried under the skin. Nor is the disfigurement always limited to lacerations, for frequently unrecognized or unreduced fractures of the nose, malar region, zygoma, or orbit will further mar the features.

* Barkan, O. and H.: Fracture of Optic Canal, *Am. J. Ophth.*, 11:767-774 (Oct.), 1928.

The responsibility for all end results rests entirely with the surgeon rendering first aid. When facial injury is complicated with possible brain injury, it is perfectly right that the less important facial repair give way to treatment for skull damage. But all too often the opportunity of properly treating lacerations is neglected or done quickly, hurriedly, or poorly. Experience led Kanavel to state that finger and hand infections should be opened under general anesthesia. By the same token, may I venture a similar observation, that all lacerations should be repaired as soon as possible in a clean, properly equipped surgery or minor surgical dressing room. The reasons for this should be obvious.

The factor of time is important. The earlier a wound is seen and dressed the less opportunity for infection to occur. Space does not permit entering into all the measures used in sterilizing a wound and rendering it clean and ready for suture, but all of us have established some routine. I do feel that the indiscriminate use about the face of United States Pharmacopeia or seven per cent tincture of iodine, or, as it so often happens, an even stronger solution, is to be condemned. The skin of the face may be blistered, the fat and subcutaneous tissue may be chemically traumatized, and with this as a basis it is not wondered at why a clean, sharp cut, even carefully sutured, frequently becomes infected. On the contrary, if a mild two to three and one-half per cent solution of iodine be used, the bleeding stopped by pressure or fine tying, dead spaces eliminated, and accurate and careful apposition of the skin edges carried out, nearly any wound will heal *per primum*. Abroad it is often customary to compress and Dakenize severe lacerations for twenty-four hours and then attempt the repair. I cannot agree upon this as a routine measure, and feel that such a delay increases the danger of infection. However, with infection present, hot compresses of normal saline or boric acid should be immediately instituted, adequate drainage provided, with possibly the removal of part, or all the sutures. Delay in recognizing infection and initiating compresses tends only to allow the infection to extend, with the loss of valuable tissue.

With severe lacerations of the face one can hope to gain good scars only by thoroughly cleansing the wound of foreign material and then closing the wound with accurate and careful sutures of fine horse hair mounted on fine needles. Catgut should not be buried. If deep tissue approximation is desired, a silkworm may be tied somewhat loosely over gauze, after encircling the structures which need apposition. This suture should be removed in from twelve to thirty-six hours. Should the tissues be shredded and abraded, debridement is indicated, but if this threatens to be extensive it is wiser to conserve tissue for a subsequent repair. Where abrasions of the face contain foreign matter which is literally ground into the skin, tannic acid as used in burns may be employed. I have had no opportunity of using or observing the procedure, but it is logical.

Fractures are often hidden by swelling and, therefore, careful examination is necessary. Displaced nasal bones or a dislocated septum may be reduced with a long curved hemostat and are easily replaced during the first few days. A large towel clip, if used early, will often give sufficient traction to reduce a fractured zygoma or malar bone. Local anesthesia is necessary for adequate reduction. I have found the easiest means of detecting fractures of the malar bones, orbital region, and zygoma, is in palpating the region while standing behind and above the patient's head and looking down at the transverse profile. Fractures in this region usually maintain their position following early reduction, but may require the use of a Kingsley splint if severe or bilateral.

Late treatment of facial scars consists in their excision and the careful approximation of the skin edges. At this time, hollowing or dimpling, due to muscle retraction, previous infection or adhesions, must be corrected by subcutaneous flaps of tissue, with wide undercutting. The skin edges should be also undercut so that they may be brought together without tension. Foreign material, such as glass, is removed by excision. If it has been ground in the skin from an abrasion, it may be removed by partial excision. I have not been entirely successful in tattooing it out, and feel that the plan of partial excision offers a better result. If it is superficial the repeated use of acid in the form of carbolic, or better, trichloroacetic may be of value. Carbon dioxid snow is also worthy of trial. It should be remembered that over a period of time such a scar tends to fade and entirely disappear by gradual absorption of the buried foreign matter.

All stitches are removed early and scrupulous care to avoid crusts is maintained. Later the scar may be improved by massage, application of small fractional doses of x-ray, and cauterization with trichloroacetic acid. Time and nature, coupled with massage, may be counted upon to immensely improve any scar, and one should encourage a patient to wait at least twelve months before judging the end result.

The late treatment for facial fractures is difficult and should not be lightly undertaken. Complete mobilization of all bones is necessary. The correction of old fractured nasal bones frequently demands release of skin, mucous membrane, septal attachments, with often the complete mobilization of the septum. Malar fractures and those of the zygoma may be treated intra-orally or by leverage through an incision made in the hair line over the temporal muscle, after the method of Gillies. By inserting a screw through a tiny incision and penetrating the bone, adequate traction for reduction is often possible.

The difficulty, however, which is frequently experienced in the late treatment of fractures, especially those about the nose, brings again to mind the necessity and advantage of early, adequate, and thorough first-aid care.

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EDITORIALS*

HAPPY NEW YEAR

In these troublous times, when physicians are more than ever seemingly called upon to be "charity physicians," the presentation of the Greetings of the Season may seem almost an empty gesture. Nevertheless, CALIFORNIA AND WESTERN MEDICINE does extend its good wishes for A Happy and Prosperous New Year to each of its readers.

These are days when an unusual number of worries are coming to many physicians. The days, however, will pass the more rapidly and advantageously if well filled, not only with regular tasks and responsibilities, but with accessory professional activities. For those who, for the nonce, have greater leisure than in the rush days of several years ago, an interest in the work of organized medicine is recommended. There are few activities that can add so much satisfaction to the joy of living, as can be made to accrue through a happy interest in the individual and group activities of one's professional life work. In California many serious problems confront the medical profession. The greater the number of members of the California Medical Association who give attention and thought to the solution of those problems, the greater will be the assurance of progress for ourselves and our successors in the days to come. Your cooperation is invited.

* Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Medicine Today column, which follows.

And once again—A HAPPY AND PROSPEROUS NEW YEAR from CALIFORNIA AND WESTERN MEDICINE.

PUBLIC HEALTH EXPENDITURES—PROPOSED CONSOLIDATION OF LOS ANGELES CITY AND COUNTY HEALTH DEPARTMENTS

Tax-Moneys, Even in Public Health Work, Should Be Conserved.—The protection of the public health necessitates the expenditure of large amounts of public funds. Because public funds should be held inviolate and conserved as much as possible, it follows that in even so worthy a cause as that of the public health, the moneys spent should be so used that wastage—whether from abortive efforts or overlapping methods—be held to a minimum.

* * *

Some Interesting Financial Reports on Public Health Work.—On the desk of the editor are several recent reports of public health organizations. It is unfortunate that all licensed practitioners cannot have copies of these reports, because they present a wide range of information, interesting and important to both the medical profession and the lay public.

From several of these annual summaries the financial figures given below have been taken.

* * *

The Rockefeller Foundation.—The Rockefeller Foundation of New York states that during the fiscal year 1930, a total of \$2,233,311.89 was expended on public health and allied work. That foundation, since its organization in the year 1913, has expended a total of \$42,435,856.94 on such work. Fortunately for the world, the Rockefeller Foundation, in its capital or reserve funds, still has at its disposal a grand total of \$214,993,367.42 to carry on work in the future.

* * *

The Pasadena Health Department.—The city of Pasadena has a population of 76,210. The chief of its health department is J. D. Dunshee, M. D. In a volume of some eighty-five pages, Dr. Dunshee has given an excellent presentation of the work of his department for the fiscal year ending June 30, 1931. It is stated therein that the total budget appropriation of the Pasadena Health Department for the last fiscal year was \$61,292.45 (a per capita expense of \$0.80).

* * *

The Los Angeles County General Hospital.—The report of the Los Angeles County General Hospital for the fiscal year ending June 30, 1931, as submitted by its then superintendent, N. N. Wood, M. D., showed the total expenditures for the year to be \$5,395,251.46. Of that amount the sum of \$1,167,284.05 was for capital outlays, leaving for in-patient or bed service the sum of \$3,734,663.73 and for out-patient or ambulatory patients who went to the hospital, the sum of

\$457,519.26. The cost of care per in-patient per day in this large public hospital was \$5.30, and the cost per out-patient visit was \$1.24.

* * *

The Health Department of the County of Los Angeles.—The Health Department of the county of Los Angeles is one of the largest county health departments in America. The last fiscal year report of J. L. Pomeroy, M. D., county health officer, covers some 203 pages. In that report Doctor Pomeroy states:

..... "From a total population of 107,613 in 1915 at the beginning of my incumbency in office, the population of the county of Los Angeles has increased to 705,984 (an increase of 700 per cent). We have taken over and organized the health departments of thirty-five cities in the county, some of them with 50,000 to 65,000 population, trained the personnel, planned, built and equipped Health Centers, and created the organization to function over some 4000 square miles. This organization has functioned not only for the public health needs of the ordinary type, but also for clinics for the indigent sick, for school health work, for emergency hospital care, as well as coördination of general social welfare of the district."

The money which was required to maintain these Los Angeles County Health Department activities during the last fiscal year totaled \$1,227,791.87.

* * *

The Health Department of the City of Los Angeles.—The current fiscal year's report of the Health Department of the city of Los Angeles has not been printed, but on January 1, 1930, the population of Los Angeles city was estimated at 1,221,653. The provision in the city budget for public health work for the fiscal year was \$708,558.74, but fees collected by the department during the year totaled about \$117,000, the difference or \$591,558.74 representing the funds received from taxation sources.

* * *

On a Proposed Consolidation of the Health Departments of the City and County of Los Angeles.—The largeness of the foregoing figures is no doubt more or less of a revelation to many members of the medical profession. It may also be taken for granted that they will surprise many lay persons.

At the beginning of these remarks it was stated that in the expenditure of public funds, even in so commendable a civic function as that of public health conservation, it was important that no unnecessary wastage of public moneys should take place. It is therefore of pertinent interest to all citizens that financial savings be instituted, provided that such do not lower the standards of efficient service. This is particularly so at this time when economic depression seems to be almost world-wide, and when taxation assessments loom large in the public mind.

For some years, plans of consolidation of the health departments of the City and County of Los Angeles have been discussed in the lay press and at this time, particularly, the consideration of

proposed plans should be of interest to both medical and laymen taxpayers.

Without attempting to affirm the merits thereof, the following paragraphs are here reprinted from page 69 of Los Angeles County Health Officer Pomeroy's report. The quotation deals with the possibility of effecting a saving of one to two hundred thousand dollars annually by consolidation and coördination of public health work between the County of Los Angeles and the City of Los Angeles. The excerpts are as follows:

"During the last year the cities of Long Beach and Los Angeles both had under consideration merging their health work with the county. In both cases marked economies could have been effected, but owing to various political reasons the merger was not effected. Both Long Beach and Los Angeles maintain milk inspection at considerable cost to themselves, although the dairies are located in county territory outside the cities in question. Laboratory work as well as field inspection is duplicated. In spite of strong demand from prominent dairy interests and the County Farm Bureau the Los Angeles City Health Officer opposed the creation of a county milk commission to effect economies in milk inspection.

"It was proposed to create a commission on which each of the large health departments would have representation, and to pool all finances and interests. The state law permits such consolidation of interests. Such an organization would have saved the taxpayers \$50,000 annually. Both Long Beach and Pasadena representatives agreed to such a proposal, but political interests of the city of Los Angeles defeated the measure.

"It would be possible to consolidate the health work of the city of Los Angeles and the county and save the taxpayers \$150,000 to \$200,000 annually, together with a great increase in efficiency." . . .

* * *

Further Studies of Consolidation Plans Indicated.—If the statements made in the above quotation are well founded, it would seem highly desirable that further conferences should be had in these matters. As is well known, the geographical boundaries of the city of Los Angeles ramify in and out between other incorporated cities of the county. The unincorporated territory of the county of Los Angeles does likewise, so that the city of San Fernando, for instance, is completely surrounded by unincorporated territory of the county of Los Angeles. What adds to the confusion is that by our California law, school districts not infrequently lap over from the confines of one city into the territory of other cities and/or into unincorporated county territory. In public health work such geographical boundaries constantly present problems of jurisdiction, because infectious diseases give no heed to such artificial boundaries. In quarantinable school diseases, for instance, it thus sometimes happens that the question of responsibility over a child is a matter in which, at one and the same time, one or two city health officers, a county health officer and a medical school inspector can all become involved.

With public health situations such as these constantly arising, and with real economic hardships facing many citizens who are called upon to pay taxes and public assessments in these days of eco-

conomic depression, the plan of having one or more conferences on ways and means to hold down public health expenditures should be given very serious consideration. As stated before such efforts have been made in Los Angeles city and county during the last several years. It will be interesting to note whether any progress in these important public health and civic matters will be possible.

* * *

Initial Conferences Will Be Commenced.—After the above was written, the following item appeared in the Los Angeles newspapers:

"To coöperate with a special committee named by county officials to eliminate overlapping services between the county and city, the city health board yesterday selected three business men as its representatives."

The Board of Supervisors of Los Angeles County probably will appoint a similar conference committee. It is to be hoped that if real conferences for consolidation of the departments are in mind or are undertaken, at least one member of the medical profession will be appointed to each of the conference committees, because otherwise important public health policies might be decided by conference committees of laymen who, being in the majority, would be distinguished not by how much, but perhaps by how little they really know of the relative value and importance of different phases of public health work. Or, to put it otherwise, while public health work should be carried on along lines of real economy, in the decision as to where such economies may be best effected, the advice of citizens who have a medical background and knowledge could be of great value. It is hoped that these initial efforts for elimination of duplication work in milk inspection and so on will lead to a real survey of these two public health departments which have annual expenditures exceeding those of many states in the Union.

PURE FOOD LAWS—MILK: BOTH RAW AND PASTEURIZED

Pure Food and Drug Laws Inaugurated Twenty-five Years Ago.—Twenty-five years ago, Wiley and others who had been carrying on a campaign to educate the citizens of the United States on the importance of protection of food supplies, saw some of their efforts to better safeguard the public health finally meet with success. The national pure food and drug law which then came into being made it possible for virtually the first time to maintain some semblance of control over the production and distribution of foodstuffs; at least as regards foods and drugs distributed under interstate conditions. Not the least of the legal regulations which were at that time brought into being, were those dealing with "misbranding" of foods and drugs.

The passage of that national food and drug law and the subsequent adoption of its essential provisions by most of the states of the Union, permitted public health departments from one end

of the country to the other to maintain at least a nominal supervision over foodstuffs and drugs; which otherwise, in adulterated or misbranded form, could become serious menaces to the health of the people.

* * *

Difficulties of Enforcement of Pure Food Laws.—The original laws of twenty-five or so years ago represented a big advance on what existed at that time. With increasing knowledge and experience, those laws should have been amended to make them more capable of dealing with the legal and other complexities which constantly arose when attempts were made to enforce the provisions of the various acts. However, the selfish commercialism of some dealers—whose dominating thought was larger financial profits, without regard to the purity of their products or the deleterious effects of adulterated or below standard food products upon the public health—made difficult the enforcement of some of the laws: this because of the recourse to legal action and technicalities by some of such grasping food purveyors and distributors. Further, as such groups learned how modern day advertising and propaganda—no matter how far removed from the truth—could be used to exploit and increase the sales of their below standard products, they turned with increasing alacrity to all those quips and turns in legal procedures that would enable them to reap the largest possible amount of financial profit, regardless at what cost of health or happiness to others. Had it not been for the loyal support and high-minded coöperation of the maligned public health administrators, the struggle for adequate protection of the public health in these matters might almost have been in vain. The medical profession has reason to take pride in the very creditable part which its members, here and there, have played in the enforcement of the various national, state and local pure food laws.

* * *

"Certified Milk" Came Into Being About the Same Time.—About the same time that the present-day protection of manufactured food and drug products was inaugurated, there came into being what was practically a national attempt to place milk production and distribution on a more satisfactory basis. One of the educational elements that exercised a tremendous influence in providing better safeguards in the production and distribution of milk, was the happy thought of Dr. Henry Coit of Newark, New Jersey, in copyrighting the term "Certified Milk" and in outlining the conditions under which and by whom that term could be used. In Coit's plan, the production of a pure raw and uncontaminated raw milk, to be known as "certified milk" was to be under the supervision of milk commissions of county medical associations. In California, it is just about twenty-five years since the Milk Commission of the San Francisco County Medical Association and the Milk Commission of the Los Angeles County Medical Association came into being.

Those Commissions have never lapsed in their efforts to place pure milk at the disposal of the citizens of their districts.

About the same time, the Dairy Division of the United States Bureau of Animal Industry brought out one of its first score cards to be used in the grading of dairies. The writer, as secretary of the Los Angeles Commission, well remembers the early efforts of the members of that Commission to score not only their one certified dairy of that period, but also other non-certified dairies, whose owners they were trying to educate on how cows should be housed, fed, cleaned and milked, how the milk should be handled, cared for and distributed, and by whom. Since that day, state, county and municipal laws have been enacted that in good part place the responsibility of the production and distribution of milk on the executives of the various state and local health departments.

As time went on, California deemed it proper to provide that all natural milk sold within the state should be either raw or pasteurized. For a quite lengthy period, there was considerable opposition to a pasteurized milk on the grounds that it was not so desirable as a foodstuff for infants and children, and because it might make "dirty milk" presumably safe. The prejudice against pasteurized milk has largely subsided and as regards contaminated milk, the modern inspection methods of state, counties and cities, hold the production of such contaminated milk down to a minimum.

* * *

California Has Three Types of Raw Milk.—California permits the production, distribution and sale of three types of raw milk: certified, guaranteed raw, and grade A raw milk.

It has been stated that only fifteen per cent of the milk distributed in Los Angeles city is raw milk, all the remaining milk being pasteurized milk. This raw milk includes all certified, guaranteed raw and grade A raw milk.

During the last several years the certified dairies have been making very strenuous efforts to do away with the possibility of undulant fever in their herds, and this effort has been in good part successful. Figures which have been brought forward would indicate that there has been an increase of something like 500 per cent in undulant fever in general dairy herds of Los Angeles County during the last four years.

It is not necessary to discuss the great precautions which surround the production of the raw milk known as "certified." It is regrettable that the extra care in the production of certified milk necessitates a distinctly higher selling price than that of other milks, but that is a something that cannot be overcome.

* * *

Shall "Guaranteed Raw" and "Grade A Raw" Milk Be Discontinued?—The interesting question concerning "guaranteed raw" and "grade A raw" milk which confronts the dairy industry, the medical profession and the lay public is whether or not these two types of raw milk should continue to

have legal state sanction. The argument has been brought forward that these two types of raw milk are in one sense imitators of certified raw milk, without having the same meticulous supervision in production and distribution. Or as has been stated, these two types of raw milk aim to capitalize for financial advantage, the prestige of a special grade of milk known as "certified."

There is a strong group of public health officers who contend that the state milk law of California should be amended so that all milk produced and distributed in California, except "certified milk," should be pasteurized. In other words, that the raw milk grade, known as "guaranteed raw" and "grade A" should be discontinued. Such amendments will probably be presented at the next session of the California legislature. Because of the importance of milk as an essential foodstuff for infants and many invalids a very considerable interest will be maintained in these matters by many physicians.

Man Who Invented Thermometer Once Known as Bad Boy.—Daniel Gabriel Fahrenheit, the man who invented the mercury thermometer, and whose name has been perpetuated throughout the English-speaking world for the past two centuries in connection with that invention, was apparently a typical Peck's bad boy and a typical "rounder," in his youth.

This fact is indicated by a letter dated January 21, 1707, which was recently found in the archives of the city of Danzig, Germany.

According to the letter, young Fahrenheit, at the age of 21, was causing his guardians so much trouble and was so incorrigible that the city council was requested to aid in shipping him away to the Dutch East Indies. Luckily the plan was not successful.

The letter, which was addressed to the burgomaster and the honorable gentlemen of the Danzig town council, reads as follows:

"We, who have been named as the guardians of the minor children of the late Daniel Fahrenheit, have sent his son, Daniel Gabriel, a minor, to Amsterdam by his own consent, to serve in an office, in the hope he would learn to conduct himself properly. But things have gone badly with this minor; he has spent the money given him; and he has behaved himself regrettably in other ways. So, in order to protect the interests of his brothers and sisters, we have been obliged to sequester part of his capital, and have requested him through his patron to turn a new leaf.

"But he has paid no heed, he has resumed his former practices, so we have been put to not a little trouble and pains to try to bring about a change for the better in his mode of life, but without being able to do anything with him. We finally, on his own representation, decided to have him sent to the East Indies, for which purpose we dispatched him to Amsterdam a few weeks ago and sent order to a certain merchant (firm) by the name of Johannes Droogenhorst and Son to help him to a place with the East India Company, which was done. But when the time came for him to present himself, he failed to appear, and according to a report that has come in he has gone to the bad again, and resumed his former way of life. Because we can see nothing ahead for him except destruction and dire ruin to his temporal well-being, we guardians desire to report the situation to the honorable council, as his supreme guardians, hoping that the council with the help and advice of the authorities request—that we be authorized to send full powers issued under the seal of the town to the said Droogenhorst and Son in Amsterdam, instructing them to locate him with the help of the authorities, place him under arrest, and send him to an appropriate place in the East Indies at the earliest opportunity."—*U. C. Clip Sheet.*

MEDICINE TODAY

This department of California and Western Medicine presents editorial comment by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to every member of the California, Nevada and Utah Medical Associations to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

The Prevention of Mental Disease.—There are more patients under treatment for mental and nervous disease in institutions in this country than in the remaining institutions which care for all other types of illness combined. There are more mental patients under institutional care than there are students in our universities. One out of every 325 people is in a hospital for mental disease. These are appalling figures when thus brought to our attention.

As in all other fields of medicine, prevention offers more hope than cure, and early diagnosis becomes of paramount importance. Someone has said the cure of mental deficiency starts with the grandparents. The recognition of inheritance as a factor in the production of defectives led California to pass a law permitting the sterilization of the unfit. In our State we have sterilized more of the mentally unfit than in any other state, a few thousand in all. This is but scratching the surface of the problem. Sterilization should be carried out more freely and as much help as possible obtained in this manner. When a mental defective of twenty-nine comes before one of our superior courts for commitment to the school for feeble-minded, and has the record of giving birth to seven children, all defective, while the department of public charity of the county has supported the family financially for the last six years, it would seem that our sterilization law needs better enforcement and our charity, better supervision.

Segregation of those unfit to propagate offers a more readily accepted method of diminishing the production of defectives. Our state institutions, especially in the southern part of the state, are greatly overcrowded. More institutions for special types of cases are needed, especially of the farm and industrial order. A large and apparently increasing class of constitutionally psychopathic individuals undoubtedly convey defective inheritance to their offspring. At the present time we have no institution that will take these patients, no laws that will hold them in institutions. State colonies where such individuals can be placed and made to do productive work for the state would make them at first largely self-supporting and would later more than repay the necessary initial investment.

Early environmental conditions are of tremendous importance and at least partially controllable. Measures of physical hygiene, proper nourishment, the correction of physical disabilities—all serve to prevent development of mental and nervous disorders.

The nursery schools, neuropsychiatric consultations in the grade schools, in the high schools, and

in the universities are accomplishing much. Education of the teachers and available expert advice is a most important part of such service. General education of the public through child guidance and other clinics and the numerous activities of the various associations for mental and social hygiene have already disseminated accurate knowledge along mental hygiene lines.

The individual physician must do his share by increasing his own insight and knowledge and by sharpening his diagnostic acumen along the lines of personality study. He must aid by sharing his special knowledge and broader viewpoint with his patients while recognizing his own limitations and insisting on special aid when his own ability to help has been exhausted.

Education of the general public and especially of the nurse, teacher, patient, medical student, and physician, is the keynote in the prevention of mental and nervous disorders.

H. DOUGLAS EATON, Los Angeles.

Some Recent Developments in the Physiology of Muscle.—The researches of Hill, Meyerhof, and others, during the last decade led to the development of a fairly definite conception of the nature and rôle of the several chemical reactions concomitant with muscular contraction, which the writer briefly outlined in a previous paper.¹ The recent findings of Lundsgaard,² confirmed by Meyerhof³ and others, make it necessary to modify these ideas in some essential details.

In 1887 Pohl found that mono-iodo-acetic acid (hereafter called IA) interfered with the production of lactic acid in excised muscle on standing.⁴ This inhibition was rediscovered by Lundsgaard (loc. cit.), who has shown that muscles poisoned with IA will contract when stimulated, although no production of lactic acid is associated with this contraction. Under these conditions phosphagen decomposes more rapidly than normal, and the amount of this breakdown is proportional to the mechanical work done during contraction. When phosphagen is all used up, the muscle goes into rigor.

These observations indicate that phosphagen and not lactic acid is the substance most intimately related to the mechanical response. Under normal conditions phosphagen resynthesis is very rapid in comparison with lactic acid resynthesis,

1 Field, J.: California and West. Med., Vol 33, No. 6, 1930; Vol. 34, No. 1, 1931.

2 Lundsgaard, E.: Biochem. Ztschr., 217:162, 1930.

3 Meyerhof, O.: Lancet, 2:1415, 1930.

4 Pohl: Arch. f. exp. Path. u. Pharmacol., 24:149, 1887.

and is effected by energy derived from lactic acid production,³ hence it was not until the lactic acid cycle was removed from the picture that the significance of phosphagen could be appreciated.

In these experiments the question of the specificity of IA arises. Is it a general enzymic poison or does it act particularly on enzymes important in the lactic acid or Meyerhof cycle? Present evidence favors the latter view. For example, Lundsgaard found that IA affected neither glycogenolysis nor phosphagen hydrolysis in concentrations which completely suppressed the Meyerhof cycle (one part in 25,000). It does not disturb the action of ptyalin or of invertase,⁵ and while it checks yeast fermentation (a process very like lactic acid formation⁶) Lundsgaard reports that it does not interfere with the oxidative metabolism of yeast.

What are the features of "alactic acid contraction"? Apparently the electrical and mechanical responses in the isometric twitch are quite normal in the early members of a series of contractions⁸ although the onset of fatigue is more abrupt, and the muscle will perform only about a fourth as much work as in the absence of IA.³

Rather complicated changes occur in the thermal response. In previous papers⁹ it was pointed out that the heat production in an isometric twitch is diphasic. The first phase, the "initial heat" of A. V. Hill is concomitant with contraction and relaxation and is anaërobic, while the second phase, "recovery heat," follows the mechanical response and is chiefly aërobic. The initial heat in turn is diphasic, 65 to 70 per cent being associated with contraction, 35 to 30 per cent with relaxation. IA has little effect on the amount or distribution of the initial heat in the first few contractions of a series, but if the poisoned muscle be stimulated to complete exhaustion the total anaërobic heat is reduced some 58 per cent.^{10, 11}

The recovery heat is also affected. Little changed in the first few contractions of a series, it soon begins to decrease more rapidly than the initial heat. A. V. Hill and coworkers have inferred a dual rôle for IA: an action upon the lactic acid forming system; and an action upon a system using energy from oxidation for recovery (resynthesis of phosphagen, etc.).¹² Systems of the latter type exist, since muscles poisoned with IA will do more work in oxygen than in nitrogen.

Some generalities are interesting. Warburg¹³ and others have shown that the Meyerhof cycle

is of widespread occurrence, being especially notable in embryonic and cancerous tissue. In muscle, IA interferes with the cycle by poisoning glyoxalase, the enzyme catalysing the formation of lactic acid from its immediate precursor, methyl glyoxal;¹⁴ of course previously linked reactions may also be checked. While the mechanism of lactic acid production in cancer is probably unlike that in muscle, Harrison and Mellanby found that IA inhibits the Meyerhof cycle in mouse carcinoma 63, both *in vitro* and *in vivo* (intravenous injection). It must be emphasized that lethal doses of the very poisonous IA were required to produce the latter effect.¹⁵

In summary: The rediscovery of the Pohl effect has caused fundamental changes in our conception of the rôle of the Meyerhof cycle in functional metabolism. It has also placed in our hands interesting and valuable reagents for analyzing carbohydrate metabolism, viz., the monohalogenated acetic acids. We may reasonably look for significant increase in our knowledge of the animal economy in consequence.

JOHN FIELD, Stanford University.

Alleged Mobilization of Antibodies in Nervous Tissues.—It is generally believed that unless the meninges are inflamed, humoral antibodies rarely penetrate in effective amounts into the cerebrospinal fluid. The practical conclusion has been drawn that in brain and cord infections therapeutic antisera are most effective if injected by lumbar puncture. Uncertainty as to the validity of this conclusion is expressed by Dr. Jules Freund of the Phipps Institute, Philadelphia,¹ who for the first time has compared quantitatively the antibody content of the brain and surrounding fluids.

Doctor Freund found that in rabbits, when the penetration of typhoid agglutinins from the blood stream into the cerebrospinal fluid is complete, the numerical relationship between the specific titer of the rabbit's serum and spinal fluid is 400:1. The corresponding antibody ratio in the serum and brain is 125:1. Which means that the antibody concentration is three times higher in the brain than in the surrounding fluid. Moreover, this relatively high titer in the nervous tissues is reached within ten minutes after intravenous injection of an antiserum, while the maximum in the cerebrospinal fluid is delayed for many hours.

Doctor Freund concludes from this evidence that the cerebrospinal fluid is not the immediate source of effective central nervous system antibodies, and that there is no physiological reason for the current belief in the increased efficiency of local injections. Whether or not the central nervous system antibodies measured by him are contained in the nerve cells or in the local reticulo-endothelial system has not yet been determined.

W. H. MANWARING, Stanford University.

³ Lundsgaard, E.: *Biochem. Ztschr.*, 220:1, 1930.

⁶ Meyerhof, O.: *Chemical Dynamics of Living Matter*, 1924.

⁷ Lundsgaard, E.: *Biochem. Ztschr.*, 220:8, 1930.

⁸ Henriques, V., and Lundsgaard, E.: *Biochem. Ztschr.*, 236:219, 1930.

⁹ Field, J.: *California and West. Med.*, Vol. 34, No. 6, 1931; Vol. 35, No. 1, 1931.

¹⁰ Hartree, W.: *J. Physiol.*, 72:1, 1931.

¹¹ Hukuda, K.: *J. Physiol.*, 72:438, 1931.

¹² Hill, A. V., and others: *Proc. Roy. Soc., B*, 108:279, 1931.

¹³ Warburg, O.: *Über den Stoffwechsel der Tumoren*, 1926.

¹⁴ Dudley, H. W.: *Biochem. J.*, 25:439, 1931.

¹⁵ Harrison, S. T., and Mellanby, E.: *Biochem. J.*, 25:770, 1931.

¹ Freund, J.: *Accumulation of Antibodies in the Central Nervous System*, *Jour. Exper. Med.*, 51:889 (June), 1930.

Ovogenesis and the Normal Follicular Cycle in Adult Mammalia.*—Ovogenesis in the rat, guinea-pig, dog, cat, and man, occurs throughout the whole period of sexual life in a rhythm fundamentally related to the ovulation cycle. In all cases the new birth of eggs occurs in large numbers throughout metestrus and anestrus. In the latter phases of this production a striking picture is produced in the ovary.

The final maturity and ovulation of a selected group of follicles or a single follicle involves the destruction of all remaining follicles. In the dog and cat this extensive production and sweeping destruction of follicles is an impressive phenomena. The destruction seems complete, and immediately following ovulation the next succeeding ovogenetic wave begins. This is called the "follicular cycle." In the rat, guinea-pig, and dog, the follicular cycle coincides normally with the estrus cycle. In the cat the two cycles may or may not coincide. In man the follicular cycle has no necessary relation to the menstrual cycle, ovulation taking place at any time during the latter cycle.

The ova arise by proliferations from the germinal epithelium in the form of invaginations or cords, forming groups of epithelial cells which are cut off from the epithelium and pass through the tunica albuginea. From one to many cells in each group enlarge and develop into sex cells, the remaining epithelial cells in the group forming the follicle cells. Extensive degeneration of the sex cells is a normal process in each cycle. This occurs to some extent at all periods, but reaches its maximum at anestrus or proestrus, extending into the next cycle, and resulting in the almost complete destruction of the enormous numbers formed during that cycle. It occurs at all stages of growth of both ova and follicles. Degeneration usually begins in the granulosa cells, but occasionally the first indications may be found in the ovum. In polyovular follicles, one or more ova usually degenerate before the others.

Estrus marks the end of the preceding wave of ovogenesis and follicular development and the beginning of the next wave in the rat, guinea-pig, and dog. It is the period at which the fewest sex cells, other than atretic ones, are to be found in the ovary. In the cat and man the ovulation period marks the end of one wave and the beginning of the next. New sex cells are formed at all periods of the cycle, but the number of these increase gradually, beginning with early metestrus to the end of the cycle. During late pregnancy and in anestrus and proestrus very large numbers are present. During pregnancy the rhythm of the follicular cycle is not obliterated. In the rat, which has a gestation period of four or five times the length of the estrous cycle, four or five cycles of the production of eggs and follicles and their degeneration occur during the period. Recurring cycles are also found in the guinea-pig. In the rat the number

of ova produced is smaller than in the other mammals, but the sequence of events in the follicular cycle is the same, though the short length of the cycle results in a telescoping of the different phases. In man there is the same evident relation of ovogenesis to the ovulation cycle which seems to characterize the mammalia generally.

Ovulation in man seems to occur at approximate intervals of twenty-eight days. This rhythm bears no exact or invariable relation to the menstrual cycle. The preliminary maturation phases so characteristic of the male germ cells are not found in the ova of these adult mammals. In the monkey the follicular cycle has been only partially investigated. Ovogenesis takes place in the same manner as in the other mammals. Ovulation apparently takes place at any time in the menstrual cycle. The concept that in the mammalia the ova are all formed before birth and remain quiescent until sexual maturity calls them into activity, has no foundation in fact. On the contrary, all the ova of adult life are new formations and are being constantly produced and as constantly destroyed. These processes are part of the rhythmic production and destruction of the tissue in the generative tract which is without parallel in any other organ in the body, the sex cells having probably the shortest life span of any cells in the body.

HERBERT M. EVANS, Berkeley.

OLIVE SWEZY, Berkeley.

Avoidable Causes That Lead to Malpractice Suits.—Some do's and don'ts concerning the subject of threatened malpractice suits are given in a very instructive article in the *New England Journal of Medicine* for April 16, 1931. Among other interesting items we note the following: "A fluoroscope has its place, no doubt, but in diagnosing fracture and discerning apposition there is no substitute for an x-ray. The x-ray is evidence that can be produced. It is concrete. What you saw in the fluoroscope was happening at the time, but it cannot be produced to prove that you got apposition when later the patient removes his cast without your knowledge or does some other act that causes loss of apposition. Here is another timely suggestion: "Please don't criticize, particularly to the patient, the treatment given by some other doctor before the patient came to you. You see the result, nothing more. You do not know the whole story. You do not know what the original condition was, what the other man encountered in the way of difficulties or whether he had proper co-operation from the patient. Wait until the evidence is all in. You may have to change your mind when you get all the facts. You may be wiser but at least you will know what you are talking about." To this we may add the injunction to be careful about what you say and to whom you say it, for in an unguarded moment you may give to a relative, or even a lawyer, a club that later will be used to beat you, and always remember that there are plenty of people who are trying to get something for nothing and it is easy to attempt to blackmail a physician and force him to pay indemnity for an alleged malpractice.—*Journal of the Indiana State Medical Association*.

Live in the ward. Do not waste the hours of daylight in listening to that which you may read by night. But when you have seen, read. And when you can, read the original descriptions of the masters who, with crude methods of study saw so clearly.—Osler, the Teacher.

* Being a discussion of a paper by Herbert M. Evans, M. D., and Olive Swezy, Ph. D., printed in University of California Memoir Series, Vol. 9, pp. 119-224; eighteen plates and sixteen figures in text.

STATE MEDICAL ASSOCIATIONS

CALIFORNIA MEDICAL ASSOCIATION*

JUNIUS B. HARRIS.....President
JOSEPH M. KING.....President-Elect
EMMA W. POPE.....Secretary

OFFICIAL NOTICE

Next Council Meeting.—The date of the next meeting of the Council has been set for January 16. The meeting will be held in the offices of the Association, 2004 Four Fifty Sutter Street, San Francisco.

COMPONENT COUNTY SOCIETIES CONTRA COSTA COUNTY

The annual banquet of the Contra Costa County Medical Society was held at the Carquinez Hotel, Richmond, on the evening of December 5, with forty members and their wives, and members of the dental profession as guests. The hall and tables were beautifully decorated under the able direction of Mrs. C. R. Blake, president of the Woman's Auxiliary. Dr. U. S. Abbott served as toastmaster. A varied program of professional entertainment was enjoyed between courses, following which short remarks were made by the retiring officers, Dr. W. A. Rowell, president, and Dr. L. H. Fraser, secretary; Dr. S. N. Weil, president-elect; Mrs. C. R. Blake, president of the auxiliary; Dr. L. A. Hewitt, president of the dental association; and Dr. Clara Spalding, incoming secretary. The new members admitted to the society during the past year were introduced by the secretary. Dr. G. M. Bumgarner spoke as representative of the older members of the profession. Mrs. S. N. Weil, vice-president of the State Auxiliary; Doctors Kaho Daily, J. B. Spalding, and H. G. Ford also made remarks.

Following the dinner, speeches, entertainment and dancing was enjoyed until a late hour.

L. H. FRASER, *Secretary*.



FRESNO COUNTY

The regular meeting of the Fresno County Medical Society was held at the Californian Hotel at 8:30 p. m. on October 6.

The name of Dr. Clayton I. Pendergrass of Clovis was presented for membership.

It was moved by Doctor Madden that the medical society go on record endorsing the reappointment of Dr. Charles B. Pinkham as secretary of the Board of Medical Examiners; seconded by Doctor Trowbridge, and carried. Doctor Madden was appointed chairman of a committee to draw up the resolutions to present to the Governor.

Mrs. Cooper made a short appeal in behalf of the Community Chest.

Doctor Dau moved that the medical society go on record as opposed to the increasing of veterans' hospitals and beds, and favor the distribution and treatment of veterans in local community hospitals and personnel; seconded by Dr. C. D. Collins, and carried. Doctor Dau was appointed chairman of committee to draw up resolutions to this effect, to be forwarded to the proper representative at Washington.

Dr. A. E. Anderson presented a letter asking the cooperation in regular examinations of women to as-

* For a complete list of general officers, of standing committees, of section officers, and of executive officers of the component county societies, see index reference on the front cover, under Miscellany.

sist in control of cancer of the cervix. Doctor Anderson was appointed chairman of local committee to promote these annual examinations.

Dr. William Nance Anderson of Los Angeles then presented the clinical paper of the evening, "Physical Examinations of the Heart," stressing the general physical examination, and finally the local heart examination. Discussion by Doctor Tupper.

Mr. Davidson of the Board of Medical Examiners then presented a dissertation on "Herb Doctors," pointing out their quackeries and absurdities.

A resolution on the death of Dr. T. M. Hayden was presented by Dr. G. A. Hare.

* * *

The regular meeting of the Fresno County Medical Society was held at the Californian Hotel at 8 p. m. on December 1.

Dr. D. I. Aller presented the recommendations from the Crippled Children's Society, which were adopted. Dr. Charles A. James was appointed as the medical society member to the Crippled Children's Society.

Dr. J. E. Pendergrass of Clovis and Dr. Hyman Ginsberg of Fresno were elected to membership, and Dr. B. F. Walker was transferred from Stockton.

Doctor Mitchell moved that the society authorize the formation of a Woman's Auxiliary; motion was seconded by Doctor Hare. After discussion a vote was taken and the motion was lost.

List of officers nominated for 1932 by Doctor Madden, chairman of the Nominating Committee. Moved by Doctor Tupper, seconded by Doctor Madden, that the secretary cast the ballot for the officers nominated. Carried. The following are the officers for the ensuing year: Edwin R. Scarboro, president; N. J. Dau, first vice-president; W. F. Stein, second vice-president; E. J. Schmidt, secretary; H. O. Randel, assistant secretary.

Delegates—D. I. Aller, Guy Manson, and T. F. Madden.

Alternates—A. E. Anderson, C. O. Mitchell, and J. D. Morgan.

Board of Governors—Frank Tillman.

Dr. Walter Boardman of San Francisco presented the clinical paper of the evening on "Jaundice," illustrated with lantern slides. His instructive paper dealt with the various types of bile formation, the elimination of bile, and the pathology involved.

E. R. SCARBOBO, *Secretary*.



MARIN COUNTY

The regular meeting of the Marin County Medical Society was held in the City Hall, San Rafael, at 8 p. m. on December 3. The meeting was called to order by the president.

A letter from Dr. William Duffield of Los Angeles, representing the California League for the Preservation of Professional Rights, urged the county societies to indorse the reappointment of Dr. Charles B. Pinkham as secretary of the Board of Medical Examiners for the State of California. Following this a resolution was duly passed recommending the reappointment of Doctor Pinkham, and the secretary was instructed to forward the same to Governor James Rolph, Jr.

A communication from the state secretary called attention to the letter addressed to all members of the California Medical Association from E. Raymond Cato, chief of the California Highway Patrol, explaining the present status of the hospital ambulance service in automobile accident cases and urging each

county medical society to study its own local condition. Following the reading of this communication a committee consisting of Doctors Delancy, Hund, and Clark was appointed by the president to study the ambulance situation and report at the next regular meeting.

A communication from the secretary of the Sonoma County Medical Society announced a four-county meeting to be held at the Sonoma Mission Inn at 7 p. m. on December 10, the subject of the meeting to be "Medical Economics." Dr. J. B. Harris, state president; Dr. John H. Graves, Dr. Morton Gibbons, and Mr. Hartley Peart were scheduled to address the meeting. The four counties to be represented will be Napa, Solano, Marin, and Sonoma. Practically all the members present signified their intention of attending the meeting, which will begin with dinner at 7 p. m.

A letter from the Petrolagar Laboratories offered to show several surgical talkie films at the regular meeting of the society. The secretary was instructed to arrange a date and select his subject for the pictures.

Another letter from Dr. Harry Spiro was read offering a paper on the "Treatment of Acute Coronary Artery Occlusion." The letter was placed on file.

Dr. L. L. Stanley called the attention of the members to an article in the October 1931 issue of CALIFORNIA AND WESTERN MEDICINE. He urged the appointment by each county medical society of a standing county hospital committee whose duties were outlined in the article. Motion was made by Doctor Stanley, and seconded by Doctor Perry, that such a committee be appointed by the president. Motion passed. Doctors Perry, Clark, and Robinson were appointed on this committee.

Doctor Hund moved that a committee on by-laws be appointed. The motion was passed and the trustees, Doctors Kuser, Larson, and Howitt, were appointed on this committee.

The following officers were unanimously nominated and elected for the year 1932: C. A. Delancy, president; Charna Perry, vice-president; L. L. Robinson, secretary-treasurer.

Trustees—H. O. Howitt, J. H. Kuser, and C. F. Larson.

Delegate to the state convention—H. O. Howitt.

Alternate—J. H. Kuser.

At the suggestion of the secretary it was decided to hold the annual banquet for the installation of officers in January. The secretary was instructed to notify all members, and if possible to secure the Meadow Golf Club for this meeting.

Members present were: Doctors Howitt, Stanley, Hawkins, Delancy, Hund, Duffacy, Clark, Kuser, Perry, and Robinson.

L. L. ROBINSON, *Secretary*.



PLACER COUNTY

The Placer County Medical Society held its annual meeting in the auditorium of the Freeman Hotel on November 28, the president, Dr. Robert H. Eveleth, presiding.

There were present the following members and visitors: Members—Doctors Eveleth, Russell, Fay, Kalman, P. D. Barnes, L. B. Barnes, Mackay, Rooney, C. C. Briner, Monica Stoy Briner, Thoren, Lewis, and Peers. Visitors—Dr. J. B. Harris, president of the California Medical Association; and Dr. H. M. Kanner of Sacramento.

After disposal of the minutes of the two previous meetings, the election of officers for 1932 was held, resulting in the election of the following members to office: Robert H. Eveleth, Roseville, president; L. B. Barnes, Newcastle, vice-president; Robert A. Peers, Colfax, secretary-treasurer; Charles J. Durand, Colfax, associate secretary-treasurer.

Delegate to California Medical Association—William M. Miller, Auburn.

Alternate—C. E. Lewis, Auburn.

The reports of the secretary-treasurer were read and approved.

The application of Dr. David M. Kindopp of Colfax for membership was read. Doctor Kindopp was unanimously elected to membership.

Following the reading of communications from the state office, the following action was taken:

1. In the matter of the ambulance and hospital situation as relating to motor-vehicle accident casualties and brought to the attention of the society through a letter from Mr. E. Raymond Cato, chief of the Highway Patrol, the matter, by order of the president, was turned over to Doctors Mackay and Lewis to investigate and bring in a report.

2. Relating to the Department of Public Relations of the California Medical Association, it was decided to cooperate with the Sacramento Society for Medical Improvement. Doctor Harris promised to endeavor to have a joint meeting of the county societies of the eighth district for the purpose of explanation in order that the members of the district may be thoroughly informed regarding this very important department and in order that the members of the medical profession of this district may give 100 per cent cooperation.

3. Relating to the expiration of the term of Dr. Charles B. Pinkham as member of the California Board of Medical Examiners, a resolution endorsing Doctor Pinkham's candidacy was presented, and carried. The secretary was instructed to write to the Hon. James Rolph, Jr., enclosing a copy of the resolution.

Dr. Robert F. Rooney, dean of the medical profession in California and president of the California Medical Association for 1905-1906 and 1906-1907, addressed the society calling attention to two matters of importance:

1. The need of greater haste in the preparation of the history of medicine and of pioneer medical men in California.

2. The danger of allowing various cultists to monopolize the positions as instructors of the public regarding foods and food values. He urged the members of the medical profession to take the time and devote the energy necessary to the spread of proper and safe information as to the modern conception of food values and other information relating to diet necessary for the lay public. This was generally discussed.

The president then introduced Dr. Junius B. Harris, president of the California Medical Association, who addressed the society on various problems of present interest to the medical profession. Among other topics discussed were:

1. Status of the present Medical Library bill and the appropriation therefor.

2. The Department of Public Relations. Dr. Harris explained fully what the department is, what its aims are, the personnel and the duties of its personnel. He urged 100 per cent cooperation by the members of the Placer County Medical Society.

3. The Cancer Commission recently established by action of the House of Delegates.

4. The County Hospital situation in California: Doctor Harris cited a number of counties in which the present method of handling county hospitals is working a hardship on the physician and private hospitals; is creating differences and dissatisfaction between indigent and pay patients, and is placing unnecessary and unjust burdens upon the taxpayers. He urged our members to see that no such problems are raised by the new Placer County Hospital now in course of construction.

5. The symposium in the September number of CALIFORNIA AND WESTERN MEDICINE. Doctor Harris requested all who have not read this symposium to do so.

6. The value of making of proper contact with individuals and with the various organizations within this district in order that the people may be properly educated regarding the aims of organized medicine for better health, better medical and better hospital practice.

Doctor Eyeleth, on behalf of the Placer County Medical Society, thanked Doctor Harris for his very splendid and very instructive talk.

ROBERT A. PEERS, *Secretary*.



RIVERSIDE COUNTY

At the regular December meeting of the Riverside County Medical Society, Dr. B. E. Garrison was unanimously elected to membership in our society.

Dr. Mott Arnold, councilor for our district, and Dr. R. A. Cushman favored us with a visit and brought the greetings of the California Medical Association. They discussed various matters of interest to the medical profession.

Election of officers for the year 1932 resulted as follows: C. E. Atkinson, Banning, president; Hervey S. Faris, Riverside, vice-president; T. A. Card, Riverside, secretary-treasurer.

Delegates—T. A. Card and C. E. Atkinson.

Alternates—S. H. Keller and A. L. Bramkamp.

The program of the evening was on the subject of "Anesthesia," and was interestingly presented by Dr. E. Forrest Boyd and Dr. Arthur Guedel, both of Los Angeles. A four-reel motion picture of "Spinal Anesthesia" was then shown.

THOMAS A. CARD, *Secretary*.



SAN BERNARDINO COUNTY

The regular meeting of the San Bernardino County Medical Society was held on December 1 at the County Hospital. Seventy-five members and guests were present.

The meeting was called to order by the president at 8:10 p. m., and applications for membership of Doctors Atkinson and Lonergan were voted on and approved.

The program of the evening was then given:

"Spinal Anesthesia" by Dr. W. D. Wightman of Los Angeles, and a moving picture—"Technique of Surgical Spinal Anesthesia" in two reels in color shown by Doctor Wightman.

Discussion was opened by Dr. S. B. Richards, who used as a basis the analysis of five hundred cases of spinal anesthesia, which were done at the County Hospital during the past year.

Doctor Wightman, who is a specialist in anesthesia, was accompanied by a surgical colleague, Dr. Shuler Fagan of Los Angeles, who took part in the discussion.

E. J. EYTINGE, *Secretary*.



SAN JOAQUIN COUNTY

The stated meeting of the San Joaquin County Medical Society was held Thursday evening at 8:30 o'clock, on November 5 in the Medico-Dental club-rooms at 242 North Sutter Street, Stockton.

The meeting was called to order by President G. H. Rohrbacher.

District Councilor Doctor DeLappe of Modesto was present and, in response to a call from the chair, he outlined some of the policies of the State Association. He urged that as long as possible the same delegates to the State Medical Association be returned each year.

Moved by Doctor Kaplan, seconded by Doctor McGurk, that a committee be appointed to provide, at the society's expense, suitable Christmas gifts for the children of our former member, Doctor Maggs. Motion carried. The chair appointed Doctors Kaplan, Sanderson, and Gallegos.

On motion of Dr. B. J. Powell, Sr., seconded by Dr. Dewey R. Powell, and carried, the chair appointed a committee of three—Doctors B. J. Powell, Sr.; D. R. Powell, and Broadbush—to draw up a resolution expressing our sympathy and our sorrow because of the recent death of Dr. William Ellery Briggs of Sacramento and that copies be transmitted to the Northern District Eye, Ear, Nose, and Throat Society and to the family of the deceased. Further, that the San Joaquin County Medical Society be adjourned on this date in memory of Doctor Briggs.

The scientific paper of the evening was read by Dr. Gunther W. Nagel of Stanford Medical School on the subject, "Treatment of Duodenal and Gastric Ulcers." The doctor said the cause of gastric and duodenal ulcers is not known. A complete satisfactory mode of treatment for all cases has not been found. Duodenal ulcers tend to heal and should be treated medically unless there are definite contraindications for doing so. In certain cases of duodenal ulcer surgical treatment gives very satisfactory results. Duodenitis is a clinical and pathological entity and the treatment is the same as for duodenal ulcer. Gastric ulcer is a more serious problem than duodenal ulcer because of the possible presence of malignancy. Gastric ulcer is generally a surgical problem.

The paper was freely discussed by Doctors Barnes, Dameron, Kaplan, McGurk, Sheldon, and Williamson.

There being no further business the meeting adjourned in respectful memory of Dr. William Ellery Briggs.

C. A. BROADBUSH, *Secretary*.



SONOMA COUNTY

At the Sonoma Mission Inn on December 10 a joint meeting of the Napa, Solano, Marin, and Sonoma County societies was held. Sixty-seven members and guests were present.

Dr. Junius Harris of Sacramento, Doctors John H. Graves and Morton Gibbons of San Francisco, with Hartley Peart, counsel for the State Society, were speaker guests of the evening. Their messages dealt with medical economics.

Dr. A. Morse Bowles, president of the Sonoma County Medical Society, presided.

Prior to the joint meeting, the Sonoma County Society held its regular monthly meeting and elected the following officers for the ensuing year: J. Leslie Spear, president; E. J. Finnerty, vice-president; W. C. Shipley, secretary; C. M. Carlson, treasurer.

Delegate—A. Morse Bowles.

Alternate—J. W. Seawell.

Censor—A. A. Thurlow.

The treasurer's report showed the society to be in a healthy financial condition.

The application of Dr. E. D. Barnett for membership, by transfer card from the Humboldt County Society, was received and accepted.

W. C. SHIPLEY, *Secretary*.



STANISLAUS COUNTY

The regular meeting of the Stanislaus County Medical Society was held at the Hotel Hughson on December 11. They had as their guests the members of the dental society.

There were present twenty-three dentists and eleven doctors.

New committees were appointed as follows:

Program Committee—Donald Robertson, R. S. Hiatt, and J. K. Morris.

Membership—H. E. Smith, C. E. Pearson, and E. G. Allen.

Public Relation—F. R. DeLappe, E. V. Falk, and R. E. Maxwell.

County Hospital—Donald Robertson, J. L. Collins, and Alfred M. Roscoe.

The speaker for the evening, Dr. Guy S. Millberry, gave a very interesting talk on "Present Trends in Health Service." J. A. PORTER, *Secretary Pro Tem*.



TULARE COUNTY

The regular monthly meeting of the Tulare County Medical Society was held in Visalia on November 29.

Dinner was served at 7 p. m. The meeting was called to order by Dr. S. S. Ginsburg in the absence of the president, Dr. H. G. Campbell.

It was moved and carried that the regular December meeting be omitted.

Doctor Tourtillott was appointed chairman of an Obituary Committee to draft a fitting tribute to our deceased colleague, Dr. C. M. White, and have it remitted to the JOURNAL.

The secretary was instructed to petition the Governor respecting Doctor Pinkham's reappointment.

Dr. Samuel H. Hurwitz, associate professor Stanford University Medical School, the guest of the evening, gave a very interesting address upon the "Treatment of Asthma," which was followed by a lengthy discussion.

The following members were present: Doctors Hicks, Banks, Gilbert, Johnstone, Rivin, Mooney, Seiberth, Lipson, Furness, Guido, Weiss, Tourtillott, Preston, Leidig, McClure, Miller, Kohn, Zumwalt, Betts, and Ginsburg. Guests were: Doctors Neubert and Cobiee.

A vote of thanks was extended to Doctor Hurwitz for the most interesting address.

On December 6 the County Medical Society held the annual joint meeting with the Tulare County Bar Association, the latter being hosts to the doctors. The meeting opened at 8 p. m., preceded by a banquet. Mr. Crosby, the president of the State Bar Association, was the guest of the evening. The subject, "The Problems of the Professional Man," was of as great interest to the physicians as to the lawyers.

There were twenty-two physicians and forty-eight lawyers present.

S. S. GINSBURG, *Secretary*.



VENTURA COUNTY

The regular monthly meeting of the Ventura County Medical Society was held on November 10 in the new wing of the County Hospital.

Members present were: Doctors Bardill, Smolt, Achenbach, Mosher, Hendricks, W. S. Clark, Homer, Bianchi, D. N. Clark, Welch, and Little. Visitors present were: Doctors Lillian Smolt, Hill, and Foscett.

Communications were read, after which there was discussion, followed by the presentation of a brief by Doctor Graves on state medicine.

It was decided that the December meeting should consist of a business and social one, at which time there would be the annual dinner of the society.

After the business meeting a scientific program followed, consisting of the presentation of cases in the County Hospital by Dr. W. S. Clark on bone and joint conditions, and by Doctor Smolt on tuberculosis. The cases were very well presented and were well received. There was open discussion on the cases presented, by the members.

* * *

The regular monthly meeting of the Ventura County Medical Society was held at Pierpont Inn, Ventura, on December 8, at which time the regular dinner and election of officers were held.

Members present were: Doctors Strong, Smolt, Welch, Little, Bianchi, W. S. Clark, Bardill, Shore, Coffey, Achenbach, Mosher, and Armitstead.

After a fine dinner, which was enjoyed by all, the communications were read.

The election of officers was held, Dr. W. S. Clark being elected president on the nomination of Doctor Achenbach, seconded by Doctor Bardill. Motion that nominations be closed was made by Doctor Armitstead, and seconded by Doctor Shore. Doctor Clark was elected by unanimous ballot. Doctor Hendricks was elected vice-president in a similar manner, being nominated by Doctor Bardill, Doctor Shore seconding the nomination. Doctor Strong was elected secretary with the motion by Doctor Armitstead, seconded by Doctor Bianchi, and was elected by unanimous ballot. Doctor Coffey was elected by unanimous vote to the office of alternate to the state convention for a period of two years on the motion of Doctor Achenbach, seconded by Doctor Bianchi.

It was voted that the secretary be instructed to draw up a resolution for the endorsement of Dr. Charles B. Pinkham and forward the same to Governor Rolph.

It was decided that the next meeting should be devoted to the constitution and by-laws of the local society.

R. B. ARMITSTEAD, *Secretary*.

IN MEMORIAM

Bemis, Orion Irving. Died at Modesto, December 7, 1931, age 62 years. Graduate of Bowdoin Medical School, Brunswick and Portland, Maine, 1896. Licensed in California, 1914. Doctor Bemis was a member of the Stanislaus County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Hamman, Amos F. Died September, 1931 age 57 years. Graduate of Rush Medical College, Chicago, 1903. Licensed in California, 1903. Doctor Hamman was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

Langley, Elmer Ellsworth. Died November 12, 1931, age 49 years. Graduate of Baltimore Medical College, Maryland, 1905. Licensed in California, 1929. Doctor Langley was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

Mahoney, Margaret Josephine. Died at San Francisco, December 7, 1931, age 73 years. Graduate of Cooper Medical College, San Francisco, 1895. Licensed in California, 1895. Doctor Mahoney was a member of the San Francisco County Medical Society, the California Medical Association, and the American Medical Association.

CHANGES IN MEMBERSHIP

New Members

Alameda County—Walter Rapaport.

Contra Costa County—Harry E. Peters.

Los Angeles County—Francis S. Bascom, Duncan Parham.

Orange County—Paul E. Rumph.

San Bernardino County—Charles A. Love, Jr.

San Diego County—Arthur A. Beale, Damon E. Corbin, Lewis C. Covington, Harry W. Dickerson, Vernon J. Erkenbeck, Christian A. S. Kemper, Glen H. McDonald, William F. Meyer.

Transfers

Francis S. Bascom, from Los Angeles to Alameda County.

Kaho Daily, from San Francisco to Contra Costa County.

Emanuel C. Ehlers, from San Bernardino to Orange County.

Lowrie Grow, from Los Angeles to San Diego County.

R. Christopher Leggo, from Solano to Contra Costa County.

John M. Scanland, from San Francisco to Napa County.

John Asher Wallace, from San Bernardino to Orange County.

DEPARTMENT OF PUBLIC RELATIONS OF THE CALIFORNIA MEDICAL ASSOCIATION

Its Search for a Director

The Department of Public Relations of the California Medical Association has had two meetings and the organization is now complete. It is ready for work. The problems before it are many and varied, and involve a complex picture of economics, social adjustments, and legislation.

The members of the committee have canvassed the Association for a man to act as a director of their newly formed department. According to the resolution, this man must be a doctor. However, there are many other prerequisites for this man. He must be a good speaker as well as a good fellow. He must be

a good organizer. He must be a man who has studied, and knows, the problems of medical economics. He must be a statistician, and know how to evaluate statistics. He must be a publicity man, and understand how to organize publicity. He must be a politician, and be able to follow legislative measures in our legislature, as well as organize the medical profession in legislative matters.

And, above all, he must be a man who is willing to act in accordance with the decisions and will of the Council of the California Medical Association and the Public Relations Committee.

Thus far, the committee have been unable to find this man, but they are not discouraged and they feel that there is such a man in our society who can take up the reins and act as the executive officer in a full-time position with the California Medical Association.

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The letter below, dated December 9, 1931, was sent to Dr. O. D. Hamlin, Chairman of the Council, by Dr. Daniel Crosby of Oakland. It has to do with a discussion of some of the problems which face the newly created Public Relations Department of the California Medical Association, and is as follows:

Dear Doctor Hamlin:

After thinking a great deal about our conversation this afternoon, I have reverted to the conclusions that were borne in upon me after talking to Duffield in Los Angeles, viz.:

I. The rank and file of medical men in California or any state stand or fall upon public confidence or approval and earn their own fees—salaries being the exception.

II. The medical profession accords early and deep, though perhaps somewhat transient, confidence and respect to those of its group who accomplish or seriously seek to accomplish constructive things. Especially is this respect and confidence shown where no ulterior motive is evident in the effort and "job" might be considered ulterior motive.

III. The presence of any serious question of motive, mode of procedure, or quality of accomplishment, immediately marshals a group of disapprovers who precipitate, not conferences looking to an ironing out of difficulties, but frequently quarrels which have commonly the result of dividing any given group into stubborn unrelenting factions whose diverse and irreconcilable opinions result in the dispersal of any effects which might conciliate the factions or eliminate their disagreements.

IV. In the presence of such dispute, disagreement, and misunderstanding, a paid executive secretary is likely to find himself helplessly ground between two millstones, and, right or wrong, his efforts will be nullified.

V. Leadership to which selfish motives cannot be imputed is the only impelling force which will cause the greatest number of however diverse opinions, to unite for the common good.

VI. Therefore, instead of an executive secretary with salary, expense account, and office force, may I suggest:

1. Office force in accordance with requirements.

2. A division of the state into sections, each of which is presided over by a man of sufficient quality for this work, to be outstanding.

3. The man who is to instruct, inform, guide, and stimulate a given district should not be resident therein, but should not be so far removed from it as to make access to it difficult or time-consuming.

4. Expenses should be provided.

5. Constant communication of district directors with central office and with council and state journal could complete the liaison.

6. Other necessary details could be worked out.

If I were a man of sufficient means I would gladly undertake the work without fee as a contribution to the profession upon whom the proper guarding and supervision of the health of the individual and the commonwealth depends, but even a \$1 per year man would be hest by more difficulties than would confront a properly chosen group. There are many who would contend with the policy of an individual as always expressed by him when they would accept and coöperate with the combined efforts or declarations of several.

The practice of medicine has been almost a religion to me, and I wish, as you do, at all times to be of use to it in the largest sense. We must admit, however, reluctantly, that the profession which earnestly we seek to adorn is easily confounded from within, suffers much from hasty conclusions of approval or the lack of it, and is constantly baffled by deadly apathy and nameless distrust. We are, therefore, aware that the only road for us to follow must lead directly to a goal of unanimity and obliteration of discord. The question, whether one individual or several could best accomplish the needs of the association must be given very serious consideration.

With warmest regards, I am

Most sincerely yours,

DANIEL CROSBY.

CALIFORNIA MEDICAL ASSOCIATION CANCER COMMISSION

Pathology Committee.—The northern California section of the Pathology Committee met in San Francisco November 24 and undertook the compilation of a "Pathological Dictionary," covering the name, synonyms, definition, and behavior of each of the ordinary types of tumor. This should fill a long-felt need in the clarification of the present confused nomenclature. The committee has also in preparation a standard form of report of tissue examination.

Clinical Committee Work.—A detailed and extremely comprehensive questionnaire on all aspects of pathology and diagnosis and treatment of gynecological malignancies is now in the hands of the members of the Committee on Gynecological Tumors, and a report based upon this study will shortly be ready for submission to the general Committee of Reference.

A similar report is ready for distribution to the Committee on Breast Tumors.

Program at Pasadena Meeting.—The Council of the California Medical Association has allocated the major part of the program of one of the three general meetings at the Pasadena convention to cancer. Dr. Robert B. Greenough of Boston, chairman of the Harvard Cancer Commission, has accepted an invitation to address this meeting; and other features of interest are being prepared by the Cancer Commission.

Increase in Cancer Death Rates.—Charts received from the American Society for the Control of Cancer, covering the registration area in the United States, show that, among all causes of death, cancer has risen from sixth place in 1900 (rate sixty-three per one-hundred thousand) to second place in 1930 (rate ninety-six per one hundred thousand).

Tables just compiled by the California Tuberculosis Association for this state show, in 1930, cancer death rate to be 118 per 100,000, over 20 per cent higher than that for the United States. Returns for the first six months of 1931 indicate a still higher rate.

*Cancer Literature Available.***—The American Society for the Control of Cancer (25 West Forty-third Street, New York City) offers free to physicians for distribution to patients copies of its educational pamphlets, including the following:

"What Everyone Should Know About Cancer"—a brief statement of the nature, diagnosis and treatment of cancer for the layman.

"The Doctor and the Cancer Patient"—a very clear, concise and pertinent summary by James Ewing, well worth every physician's time to read and suitable for the intelligent layman.

"Cancer of the Mouth" by James Ewing.

"Cancer in Women."

"Important Facts for Women About Tumors."

"The Role of the Nurse in Cancer Control."

"The Prevention of Cancer" by James Ewing.

"A Message to You"—a two-page leaflet suitable for enclosure in correspondence to patients.

THE WOMAN'S AUXILIARY OF THE CALIFORNIA MEDICAL ASSOCIATION*

Official Notice: Prize Competition

The state board of the Womens Auxiliary is offering prizes of \$25, \$15, and \$5 for the three best papers on the subject of "Educating a Doctor's Wife." This contest is open to any doctor in California who is in

* As county auxiliaries to the Woman's Auxiliary of the California Medical Association are formed, the names of their officers should be forwarded to Mrs. Louis H. Dyke, Chairman of Publicity and Publications Committee. Brief reports of county auxiliary meetings will be welcomed by Mrs. Dyke and must be sent to her before publication takes place in this column. For lists of state and county officers, see advertising page 6. The Council of the California Medical Association has instructed the editors to allocate one page in every issue for Woman's Auxiliary notes.

** Any of this material may be obtained by writing direct to the Society.

good standing in the state society, his wife, and children. Maximum number of words is five hundred; minimum number is two hundred. Papers should be sent to Mrs. W. H. Sargent, 109 Beechwood Drive, Oakland, not later than March 31, 1932. The names of the judges will be announced in CALIFORNIA AND WESTERN MEDICINE. The winning papers will be read at the convention in April.

Component Auxiliary Societies

Los Angeles County

The annual meeting of the Woman's Auxiliary of the Los Angeles County Medical Association was held at 2:30 p. m. on Thursday, December 17, at the home of Mrs. William T. McArthur, 2025 South Western Avenue, Los Angeles. Following the business meeting and election of officers, a program of unusual musical interest was presented by Miss Marguerite Kuehne, violinist; Mrs. Martha D'Arc, soprano; and Anna Heloise, concert dancer. Members of the auxiliary remained for tea as the guests of Mrs. McArthur.

Orange County

The Woman's Auxiliary of the Orange County Medical Association held its October meeting at the Santa Ana Country Club.

The doctors were the guests of honor at a dinner, with several unique and original features. Programs were written in the form of prescriptions; favors for the women, in the form of a small telephone with numbers indicating their places, while those for the doctors were small physicians' bags fully equipped with stethoscope and similar supplies, all fashioned from candy by Mrs. F. Leroy Chapline of Orange.

Following special music by Mrs. Ruth Frothingham and her Spanish Orchestra, Mrs. Coulter opened the after-dinner program with "Symptoms and Diagnosis of the Orange County Medical Association," prescribing the treatment found on the prescription blanks with Mrs. Dexter Ball as "pharmacist."

Others who took part in this interesting program were: Mrs. R. A. Cushman, who gave "Spirits of Welcome"; Dr. J. Luther Maroon, who substituted for Dr. E. J. Steen of Fullerton; and Mrs. James S. Percy of Los Angeles, second vice-president of the national; junior past president of the California, and president of the Los Angeles auxiliaries.

The final number on the program was a most interesting talk by Lieutenant Rex E. Walsh, head of the chemistry department in crime investigation of the Los Angeles police force, assisted by Captain Hopkins and Herman Zabel, finger-print experts, who brought photographs of special cases which have aroused nation-wide interest.

One hundred attended this most delightful evening.

Contra Costa County

The October meeting of the Woman's Auxiliary of the Contra Costa County Medical Association was held at the Hotel Carquinez in Richmond at the same time as the meeting of the medical society of the county.

The following officers were elected to serve for 1932, with Mrs. C. R. Blake, who was reelected president; Mrs. S. N. Weil, first vice-president; Mrs. C. O. Bishop, second vice-president; Mrs. L. H. Fraser, secretary; Mrs. B. J. Harmon, treasurer.

Mrs. S. N. Weil gave a very interesting talk about a program she heard in Sacramento at the auxiliary to the Sacramento Medical Society, and especially stressed the paper given by the state president, Mrs. W. H. Sargent. Excerpts of this paper were included in the report in the October issue.

The new constitution was reread and a few corrections made.

Mrs. L. H. Fraser, presented a synopsis of a course of study which she thought would be of value for the auxiliary.

Mrs. Blake, the president, invited the auxiliary to hold the January meeting at her home, at which a

tea will be given in honor of the state president, Mrs. Sargent, and the state secretary, Mrs. A. A. Alexander.

The auxiliary is to have a review of "Microbe Hunters" at a later date.

Message to Our Members From the National President, Mrs. A. B. McGlothlan

The reports of the chairmen of the various national committees of the state presidents indicate unmistakably to the auxiliary women everywhere that as doctors' wives we have a definite sphere of influence as members of lay women's organizations. As such we may form a strong bond between the medical profession and the lay public.

Because of this possibility we shall make every effort this year to strengthen our organization both in numbers and in quality of work done.

The greatest demand made upon us is for the right kind of source material for health programs, and for health program speakers.

We are attempting to supply this information through a selected packet of literature, assembled by the Bureau of Public Information of the American Medical Association; by leaflets on communicable diseases compiled from the best recent medical literature and approved by a member of our advisory committee appointed for that purpose; by the dissemination of leaflets on "Some Contributions of Modern Medicine to the World"; by announcement of the American Medical Association radio broadcasts; and by using our best energies to promote the circulation of *Hygeia*.

We ask that every doctor's wife read the recommendations concerning *Hygeia* made to the Woman's Auxiliary by the House of Delegates of the American Medical Association. It is found on page 2116 of the June 20 issue of *The Journal of the American Medical Association*.

We believe that one of the best services we can render to the medical profession is to make our state and national conventions so attractive that great numbers of our women will be induced to attend and will influence their husbands to come.

The recent meeting in Philadelphia showed that a convention can serve such a purpose. To this end we are already planning to make the convention in New Orleans the best yet, if possible, and we herewith invite all the doctors' wives to come and bring their husbands.

NEVADA STATE MEDICAL ASSOCIATION

A. C. OLMSTED, Wells.....	President
O. HOVENDEN, McGill.....	President-Elect
J. H. HASTINGS, Pioche.....	First Vice-President
E. E. HAMER, Carson City.....	Second Vice-President
HORACE J. BROWN, Reno.....	Secretary

COMPONENT COUNTY SOCIETIES

WASHOE COUNTY

The Washoe County Medical Society met in the State Building on the evening of December 8, called to order by the president, Dr. E. L. Creveling.

In view of the fact that the society was honored by having as speaker for the evening Dr. Emil Holman, a member of the surgical division of Stanford School of Medicine who was to present an illustrated lecture, the usual routine of business was laid aside.

The speaker was introduced to a large and enthusiastic audience. Five men had driven from fifty to one hundred miles to be present, and the night was one of bad weather.

Doctor Holman's subject was "Fundamental Principles Underlying the Treatment of Intrapulmonary Abscesses and Persistent Bronchial Fistulae."

The doctor's lecture was envisioned to the audience by a large number of lantern slides.

The speaker brought out the single and multiple types of infection common to lung diseases, their mode of entrance into lung tissue and significance of localization. The review of the surgical procedures of the past ten years with comparative present-day surgical work was reviewed and reasons given why certain types of operations had been abandoned.

The necessity for bronchoscopy, roentgenograms, and accurate personal history, differentiation between types of cases requiring medical and surgical treatment, likewise postural treatment when practicable, were emphasized.

An interesting picture of the experimental introduction of septic and aseptic emboli into the lung was shown in the pictures. The aseptic emboli remained localized without pathology, whereas the penetration of tissue with destruction of substance was beautifully shown from introduction of septic substance. Septic lung emboli following operations in mouth and throat, such as teeth extraction and tonsillectomy, was dwelt upon. Mechanical aids in treating bronchiectasis with bronchoscope and postural position were illustrated.

The mechanics why certain lung cavities with fistulae remained unclosed were illustrated by diagrams.

In all, the speaker showed an aptitude for his lecture which was well received.

Following Doctor Holman's lecture, the society adjourned, but with the understanding that a called meeting is to be held later in the month for the election of officers and the annual Fellowship dinner.

THOMAS W. BATH, *Secretary*.

Nevada State Board of Medical Examiners

Dr. Edward E. Hamer, secretary of the Nevada State Board of Medical Examiners, reports seven physicians licensed by reciprocity with other states and two physicians licensed by the endorsement of credentials from June 13 to August 3, 1931. The following colleges were represented:

LICENSED BY RECIPROCITY

College	Year of Graduation	Reciprocity with
Cooper Medical College, San Francisco	(1907)	California
Hahnemann Medical College of the Pacific, San Francisco	(1914)	Washington
University of Louisville Medical Department	(1915)	Montana
Baltimore Medical College	(1895)	Penn.
University of Nebraska College of Medicine	(1925)	Nebraska
Memphis Hospital Medical College	(1910)	Mississippi
Licentiate of the Royal College of Physicians and the Royal College of Surgeons of Ireland	(1908)	California

ENDORSEMENT OF CREDENTIALS

College	Year of Grad.	Endorsement of
Columbia University College of Physicians and Surgeons	(1929)	N. B. M. Ex.
University of Toronto Faculty of Medicine	(1927)	N. B. M. Ex.

UTAH STATE MEDICAL ASSOCIATION

R. A. PEARSE, Brigham City.....President
F. M. McHUGH, Salt Lake City.....President-Elect
L. R. COWANS, Salt Lake City.....Secretary
J. U. GIESY, Kearns Building, Salt Lake City
.....Associate Editor for Utah

COMPONENT COUNTY SOCIETIES

SALT LAKE COUNTY

The last regular meeting of the Salt Lake County Medical Society was held on Monday evening, November 9, at the Saint Marks Hospital.

The meeting was called to order at 8:10 o'clock by Vice-President E. M. Neher. Thirty-six members and three visitors were present. The following clinical program was presented by members of the hospital staff: Undulant Fever, by F. S. Spencer; Tularemia, by H. B. Felts; Pseudohypertrophic Muscular Dystrophy and Acute Anterior Poliomyelitis, by A. L.

Huetner; Gastric Ulcer and Acute Vegetative Endocarditis, by D. L. Barnard and O. Ogilvie. These cases were discussed by Major T. W. Burnett, J. W. Sugden, O. J. LaBarge, and G. Richards.

* * *

The last regular meeting of the Salt Lake County Medical Society was held on Friday evening, November 27, at the Newhouse Hotel.

The meeting was called to order by President F. M. McHugh at 8:05 o'clock. Sixty members and four visitors were present.

Dr. Albert Kuntz of the St. Louis University School of Medicine addressed the society upon "Visceral Sensitivity and Referred Pain." This paper was discussed by Doctors D. L. Barnard, E. L. LeCompte, R. Tandowsky, and W. F. Beer.

The application of Dr. Leon H. Cline was read and referred to the board of censors.

BARNET E. BONAR, *Secretary*.

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WEBER COUNTY

The regular meeting of the Weber County Medical Society was held on November 19 at the Hotel Bigelow.

The election of officers for the coming year resulted in the following officers being unanimously elected by acclamation: W. S. Badcon, president; Vernon Ward, vice-president; William M. McKay, secretary; H. W. Nelson, treasurer.

An auditing committee was appointed, consisting of R. L. Drayer, chairman, with Junior Edward Rich and Leslie Smith as members.

Dr. W. D. Sansum of Santa Barbara was our guest speaker for the evening. He discussed underweight, indigestion, and allergy.

CONRAD H. JENSEN, *Secretary*.

IN MEMORIAM

Kerr, Archibald A. Died in Salt Lake City, December 5, 1931, age 62 years. Graduate of Rush Medical College, Chicago, 1896. Licensed to practice, 1897. Doctor Kerr was a member of the Salt Lake County Medical Society, the Utah State Medical Association, and the American Medical Association.

Utah Department of Registration

Mr. S. W. Golding, director of the Utah Department of Registration, reports the written examination held at Salt Lake City, June 30 to July 1, 1931. The examination covered ten subjects and included one hundred questions. An average of 75 per cent was required to pass. Three candidates were examined, all of whom passed. Five physicians were licensed by reciprocity with other states, and three physicians were licensed by the endorsement of credentials, July 14, 1931. The following colleges were represented:

PASSED

College	Year of Grad.	Per Cent
State University of Iowa College of Medicine	(1930)	82.3
University of Louisville School of Medicine	(1930)	82.
Royal University of Bologna Faculty of Medicine and Surgery	(1930)*	78

LICENSED BY RECIPROCITY

College	Year of Grad.	Reciprocity with
Northwestern Univ. Medical School	(1931)	Idaho
Indiana University School of Medicine	(1917)	Louisiana
State University of Iowa College of Medicine	(1930)	Iowa
University of Louisville School of Medicine	(1930)	Kentucky
University of Pennsylvania School of Medicine	(1928)	Penn.

LICENSED BY ENDORSEMENT

College	Year of Grad.	Endorsement of
Washington Univ. School of Medicine	(1930)	N. B. M. Ex.
University of Pennsylvania School of Medicine	(1929), (1930)	N. B. M. Ex.

* Verification of graduation in process.

MISCELLANY

Under this department are ordinarily grouped: News; Medical Economics; Correspondence; Twenty-five Years Ago column; Department of Public Health; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the twentieth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

NEWS

San Francisco Meeting Place of American College of Physicians.—Following a conference of the local arrangements committee of the American College of Physicians here, with the president of the organization in attendance, announcement was made by Dr. William Kerr, general chairman, that final plans have been approved for the sixteenth annual clinical meeting of the college, which is to be held in San Francisco, April 4 to 8, 1932.

The American College of Physicians is the largest society of physicians in America, and has approximately 3000 fellows and associate members. At the last meeting in Baltimore, Maryland, the attendance of members and guests totaled about 4000.

Doctor Kerr, who is professor of medicine at the University of California Medical School, welcomed the arrangements committee at the University Hospital. Dr. S. Marx White, professor of medicine at the University of Minnesota, and president of the college, came west especially to attend the conference.

Members of the committee on arrangements are: Dr. F. M. Pottenger, head of the Pottenger Tuberculosis Sanitarium at Monrovia, and president-elect of the college; Dr. Noble Wiley Jones, clinical professor of medicine at the University of Oregon, and regent of the college; Dr. Arthur Bloomfield, professor of medicine at Stanford Medical School; Dr. Walter M. Boardman, associate professor of medicine at Stanford Medical School; Dr. Russell V. Lee of Palo Alto; and four members of the University of California staff in addition to Doctor Kerr: Dr. Leroy H. Briggs, clinical professor; Dr. Ernest H. Falconer, clinical professor; Dr. H. Lissner, clinical professor, and governor of the northern California section of the College of Physicians; and Dr. C. L. A. Schmidt, professor of biochemistry.

Health Information on Radio.—The San Diego County Medical Society, under the auspices of the Committee on Public Policy and Legislation, has instituted a series of weekly health talks over station KFSD. These talks are being given every Wednesday morning from 10:15 to 10:30 and cover medical subjects of interest to the public generally. This educational program of the San Diego Society is being well received by the listeners within the range of the powerful local station. The program and manuscripts to be used are prepared and arranged in advance and cover the weekly broadcast periods until July 1, 1932.

Scripps Metabolic Clinic Lectures.—Dr. Llewellys F. Barker of Baltimore will deliver the annual Scripps Clinic lectures on January 7, 8 and 9, 1932. These lectures are given through the Scripps Clinic Lectureship Endowment for the members of the San Diego Medical Society. The clinics will be presented in the form of afternoon bedside clinics.

Officers for the Heart Committee.—At the annual meeting of the San Francisco Heart Committee, which was held at the San Francisco County Medical Society auditorium on Thursday, November 19, 1931, the following officers were elected: Arthur Bloomfield, chairman; Gordon E. Hein, vice-chairman; Major W. C. Munly, secretary; J. Marion Read, assistant secretary.

New Publication on Coccidioidal Granuloma.—Coccidioidal granuloma has been a subject of study in California for the past forty years. Since 1928, when the disease was made reportable by the California State Board of Public Health, greater opportunities for research have been provided. A special bulletin which covers the work of the staff in the study of this disease together with historical material, reports of investigations, case reports and bibliography, has been issued by the State Board of Public Health.

Dr. Emmet Rixford, Emeritus Professor of Surgery of Stanford University School of Medicine, contributes an article upon the history of coccidioidal granuloma in California. Doctor Rixford was the first to discover the causative organism in California. Dr. Ernest C. Dickson, professor of Public Health and Preventive Medicine of Stanford University School of Medicine, contributes an article which covers more recent investigations. The bulletin consists of forty-three pages, together with a table outlining 256 case histories. It is illustrated with two maps showing the distribution of the disease in California and six half-tone illustrations. Copies of this bulletin, known as "Special Bulletin No. 57 Coccidioidal Granuloma," may be obtained by applying to the Director of the California State Department of Public Health, Sacramento.

American Board for Ophthalmic Examinations.—The American Board for Ophthalmic Examinations will hold an examination in New Orleans on Monday, May 9, 1932, at the time of the meeting of the American Medical Association.

Necessary applications for this examination can be procured from the secretary, Dr. William H. Wilder, 122 South Michigan Avenue, Chicago, and should be sent to him at least sixty days before the date of the examination.

In Whom Is Ownership of X-Ray Plates Vested?—An interesting item concerning ownership and right of possession of roentgenograms was printed in *The Journal of the American Medical Association* of November 21, 1931. Because ownership and right of possession are questions that again and again come to the front in both hospital and private practice, the item is here reprinted. It reads as follows:

"The question whether the roentgenograms of a hospital patient belong to the patient or to the hospital was answered by a court for the first time, so far as is known, in *Hurley Hospital vs. Gage*," decided on appeal April 21 by the circuit court for the county of Genesee, Michigan. The patient had been roentgenographed in the roentgenographic department of the Hurley Hospital at Flint. The usual charge for the service was included in the patient's bill. He made a payment on account, but refused to pay the charge for the roentgenographic service unless the roentgenograms were delivered to him. The hospital refused to deliver them and sued the patient for the balance due. In the justice's court, where the suit was instituted, judgment was given against the hospital. The hospital, however, because of the principle involved, appealed to the circuit court of Genesee County. At the hearing on the appeal, no one appeared on behalf of the patient and the case was heard and judgment rendered without the submission of evidence or argument by him. In giving judgment, the court pointed out that the hospital sold and patients paid for, not the material that went into roentgenograms, but knowledge and experience. The protection of the hospital might depend largely on the proper preservation of the roentgenograms and, said the court, the films should remain in the hospital. Judgment was given against the patient for the balance due on his bill, covering the amount charged by the hospital for the roentgenograms."

✓ ✓ ✓
Apropos of the above it may be stated that at the September meeting of the Council of the California

Medical Association this question was discussed at some length. Doctor Ullmann of Santa Barbara spoke of a card which he had used, and which had been found very useful.

The language on this card is being studied with an idea of making suggestions both to hospitals and physicians to adopt similar placards in connection with roentgenograms made for patients.

CORRESPONDENCE

Subject of the Following Letter: Notification of Loss of Diploma

California Medical Association,
450 Sutter Street,
San Francisco, California.

Gentlemen:

I wish to report the loss of my medical diploma from Vanderbilt University, class of June 1915, with endorsement thereon showing licensed in Alabama, and registered in Probate Court, Birmingham, Jefferson County. This diploma was contained in a grip stolen from my automobile.

Also, the original notice of State Board of Medical Examiners was lost, which stated having passed the State Board.

If it is possible, I wish you would in some manner insert this in an issue of your journal, as I wish to avoid the use of these papers by an imposter.

Thanking you for this kindness,

Gratefully yours,

O. M. SPENCER, M. D.,
Surgeon, United States Public Health Service.

COUNTY AND CITY HEALTH DEPARTMENT CONSOLIDATIONS

Comments on Excerpts From the Political Code of California

In the editorial section of this number of CALIFORNIA AND WESTERN MEDICINE are printed some comments on the affiliations and consolidations of city and county health departments. The following excerpts from a report discussing the state laws in relation to such consolidations indicate how such consolidations may be brought about.

Provision for consolidation of certain functions of the city government of Los Angeles City with appropriate functions of the county government are as follows (Charter of the city of Los Angeles):

"Section 2 (t)—to transfer or consolidate functions of the city government to or with appropriate functions of the state or county government, or to make use of such functions of the state or county government, and in the case of any such transfer or consolidation the provisions of this charter providing for the function of the city government so transferred or consolidated shall be deemed suspended during the continuation of such transfer or consolidation, to the extent that such suspension is made necessary or convenient by said transfer or consolidation and is set forth in the ordinance establishing such transfer or consolidation, and any such transfer or consolidation may be repealed by ordinance, which repeal will terminate the suspension of the provisions of the charter hereinabove provided for;"

Various city governments have been effecting the transfer of health functions to the county health officer since 1919 until now there are thirty-six cities working under agreement with the Board of Supervisors. This is provided for in Section 4225a, Political Code, 1919 enactment, as follows:

"The board of supervisors of any county wherein a county health officer has been appointed under the provisions of section four thousand and two hundred twenty-five of the Political Code shall have power to contract with any incorporated city or town or chartered city within such county, and such incorporated city, town or chartered city therein, through its board of trustees, council or other legislative body, shall have power to contract with such county for the performance by health officers or other employees of health departments of any or all functions relating to public health. Whenever such contract has been duly entered into, the county health officer and his deputies shall thereupon exercise the same powers and duties within such city or town or chartered

city as are conferred upon health officers thereof by state law and local ordinance within such city or county. In any such contract the city, town or chartered city shall have power and authority to provide for the payment by such incorporated city or town or chartered city, to the county of such consideration as may be agreed upon, the same to be paid to the county treasurer of the county.

"Said contracts may further provide for the care and support, including medical attendance, of indigent sick, and for compensation therefor."

It is therefore plain that a City Council may by ordinance transfer the functions relating to public health to a County Board of Supervisors and that a County Board of Supervisors may enter into a contract for the payment by a city located within the boundaries of the county of such sums as may be agreed upon for such services.

CALIFORNIA NURSES ASSOCIATION RESOLUTIONS

Recommendations Regarding Notification of Service Rules

At a meeting of the board of directors of the California Nurses' Association, held on November 7, 1931, the following resolutions were adopted:

Resolution

Whereas, An unprecedented situation in nursing has been created by the world-wide economic stress of the past two years whereby many people have been unable to pay for nursing service either in the hospital or in their homes; and

Whereas, Nurses in large numbers are unable to obtain employment and thereby unable to perform the nursing service for which they have been fitted; and

Whereas, The proportion of nurses in private nursing exceeds greatly the demands for private nurses; and

Whereas, The number of students in accredited schools of nursing are even in excess of the number of the previous year; now therefore be it

Resolved, That we recommend to each district of the California State Nurses' Association that a study shall be made by a special committee composed of physicians, nurses, and lay people of the community to ascertain the conditions of nursing service within the district to the end that means may be established to adequately care for the sick, both in the hospital and in the home, according to the capacity of the sick to pay for this service.

Resolved, We further recommend that nurses will individually consider the situation and in cases where need is evident will in all tolerance seek to supply this need for nursing service at a charge that is compatible with fairness to the sick and to themselves. We have in mind the ability of the patient to pay a reasonable sum, the necessary financial support of the nurse and the encouragement of the nurse to use her own judgment.

Resolved, We further recommend to nurses that they will avoid registering against any special type of cases; that they make a study of the real cause of such practice to determine if it may be removed by further preparation.

Resolved, We further recommend that nurses will consider the type and degree of nursing required in the hospital and the home and the arrangements that may be made as to rest and schedule of hours, doing all in their power to meet the need in each case as an individual matter.

Moved Further, That a request be made to have these resolutions published in California and Western Medicine.

TWENTY-FIVE YEARS AGO*

EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Volume V, No. 1, January 1907

From some editorial notes:

Fifth Volume.—The present number begins the fifth volume of the State Journal. It is somewhat less bulky than the January number of a year ago, for the reason that we have not recovered from the crippling catastrophe of last April; but during the year we trust that conditions will so materially improve that the additional number of reading pages may be added. However, if we are not quite so comfortably situated as we were a year ago, we have at least as much con-

* This column strives to mirror the work and aims of colleagues who bore the brunt of state society work some twenty-five years ago. It is hoped that such presentation will be of interest to both old and recent members.

fidence in the future and at least as much potential energy. This year and succeeding years will develop many problems of interest and importance to our profession, and will find for each one of us ample work. The broad plan of organization of the medical profession is at last shown to be distinctly successful. In all parts of the United States, medical societies are increasing their growth and their strength, and are becoming, as it were, crystallized. Instead of wandering each his own way through life, we, as physicians, are awakening to the fact that we have many important duties, and that in many directions these have been forgotten or unrecognized in the past. As our profession is brought more and more into harmony, we recognize more and more clearly the great harm that has resulted to the public through our own apathy in the past. . . .

We Are Gullible.—Truly, we are indeed a gullible and a forgetful people. We will be intensely indignant today, and tomorrow forget what it was all about. We will believe a published lie that we read today, and next week we will read another one about the same thing, but diametrically opposed; and again will we believe that. We have come to regard the most exaggerated and impossible statements of manufacturers as privileged communications whose truth should be depended upon. . . .

From an article on "A Combination of Syphilis and Epithelioma of the Tongue" by Douglass W. Montgomery, M. D., San Francisco, and H. M. Sherman, M. D., San Francisco.

The interesting points in the following case are the combination of two important diseases such as syphilis and epithelioma in the same lesion, and the elicitation of an interesting history of unsuspected syphilis.

From an article on "The Diagnosis of Some Lung Conditions Requiring Surgical Interference" by George H. Evans, M. D., San Francisco.

To cover, in the most practical way, the above subject within the lines of a brief paper, it will be necessary to confine its limits to a consideration of some of the conditions technically within its title. . . .

From an article on "The Social Evil, Its Cost and Control" by George H. Aiken, M. D., Fresno.

For the purpose of this paper I would define the term "social evil" as open and recognized prostitution in a community, including venereal diseases and their pernicious effects. . . .

Its Control, How and by Whom?—That prostitution is one of the most destructive and pernicious evils known to the human race, no thoughtful or sane person can deny; that it is an absolutely necessary evil, essential to the health, happiness and well-being of mankind, deserving of recognition, and legal sanction, no one dare admit; but while it is an evil, and a terrible one, it is a condition which exists in nearly every city in the land, and probably will continue to exist to the end of time, and the question of the hour is, what shall be done with it?

From an article on "The Physician's Responsibility for the Nostrum Evil" by Richard C. Cabot, M. D., Boston.

As physicians we are largely responsible for the sale of secret remedies. We help to create the demand. We feed it. . . .

. . . The "patent medicine" and nostrum industry will be seriously crippled when we do two things:

(a) Stop advising secret remedies which may be poisonous or inert.

(b) Stop fooling our patients with placebos.

The positive side of all this negative advice I have tried to explain in another paper.

DEPARTMENT OF PUBLIC HEALTH

By GILES S. PORTER, M. D.

Director

California Cares for Crippled Children.—For three years, the California State Board of Public Health has been working in the interest of crippled children whose parents or guardians are unable to provide necessary treatment for the relief of their physical handicaps.

During the three years that the law has been operative in California, 266 crippled children have received treatment under the provisions of this act, and the surveys conducted by the department have located no less than 3345 crippled children within the state. Since work under this act was inaugurated more than 2000 home visits or investigations of cases have been made in fifty-one of the fifty-eight counties of the state. Repeated visits to the hospitals for crippled children and convalescent homes together with many special surveys, particularly of paralyzed children whose paralysis resulted from epidemic poliomyelitis, have been made.

Widespread epidemics of poliomyelitis occurred in California in 1927 and 1930, with a considerable number of cases reported in 1928. In 1927, 1270 cases of this disease were reported from fifty-five counties. Of these, there were residual paralyses in 316 cases, all of which were in patients living in small towns in rural districts of the state. In 1928, 154 cases out of a total of 301 which were reported showed residual paralyses. All of these patients were located in rural districts of the state. As a matter of fact, cases in the large cities where orthopedic hospitals and well organized health departments function, were not covered in the surveys made by the state.

In 1930, out of a total of 1905 cases reported, residual paralyses was found in 709 patients.

These figures indicate the importance of the Crippled Children's Act in the rehabilitation of children who suffer paralysis following epidemic poliomyelitis. Under the provisions of the act a total of 266 children have been provided with treatment. Through the results of the treatments, nearly all of these children have been rehabilitated, thereby relieving the state and the local community from possible expenses which might result from indigence brought about through unrelieved physical handicaps.

Vital Statistics Registration Law Amended.—Prior to the passage of Chapter 936 of the Statutes of 1931, only health officers of chartered cities of five thousand or more inhabitants were local registrars of vital statistics. Within recent years the registration of vital statistics has acquired a greater public health significance than formerly, when the legal phase of registration was of paramount importance. At the present time health officers desire the information contained upon these certificates, especially those for death, in order that they may analyze the factors operative in causing death, and incidentally ill health, in their community.

By this new amendment to our law, county health officers who hold contracts with cities of five thousand or more population, become by law the local registrars of vital statistics in that city. By coöperating with the full time county health officers in the state, the rural territory under their supervision is gradually being given to them for the registration of vital statistics, as well as all other health supervision. On the whole we find such an arrangement very satisfactory, and we believe that it will ultimately increase the proportion of certificates registered, especially for births.

The new law is mainly operative in Los Angeles County where there is a strong, well-organized county health department under the supervision of Dr. John

L. Pomeroy. On October 1, Doctor Pomeroy took over the registration of vital statistics in the following cities: Alhambra, Arcadia, Bell, Belvedere, Compton, Glendale, Hawthorne, Hermosa Beach, Huntington Park, Inglewood, Lynwood, Maywood, Monrovia, Montebello, Monterey Park, Pomona, Redondo Beach, San Fernando, San Gabriel, San Marino, Santa Monica, South Gate, Torrance and Whittier. In sixteen of these cities the deputies of the county health officer were acting as deputy registrars of vital statistics by agreement, but these are now legally under the supervision of the county health officer himself which will lead to uniformity and improved registration. This is somewhat noticeable at the present, even though the law has been in effect such a short time. Besides these cities, the unincorporated areas surrounding Compton, Glendale, Inglewood, Monrovia, Pomona, Redondo Beach, Santa Monica have been given to the county health officer. This is not such a change, as they were formerly administered by the district health officers. The rural territory surrounding San Gabriel and Whittier have also been added to the territory supervised by Doctor Pomeroy.

There are other counties in the state where this law is applicable, but these counties as a whole are not so well organized to care for the registration of vital statistics. In some places there is not help enough in the health department, and other arrangements have to be made, but in almost all cases the health officer is glad of the opportunity to be able to thus check his work. The cities affected by this law are listed below:

- Martinez, Contra Costa County, Dr. I. O. Church, Martinez.
- El Centro, Imperial County, Dr. Warren Fox, El Centro.
- Monterey, Monterey County, Dr. R. M. Fortier, Salinas.
- Pacific Grove, Monterey County, Dr. R. M. Fortier, Salinas.
- Anaheim, Orange County, Dr. K. H. Sutherland, Santa Ana.
- Fullerton, Orange County, Dr. K. H. Sutherland, Santa Ana.
- Orange, Orange County, Dr. K. H. Sutherland, Santa Ana.
- Santa Ana, Orange County, Dr. K. H. Sutherland, Santa Ana.
- National City, San Diego County.—Dr. Alex M. Lesem, San Diego.
- Lodi, San Joaquin County, Dr. John J. Sippy, Stockton.
- Stockton, San Joaquin County, Dr. John J. Sippy, Stockton.
- Santa Maria, Santa Barbara County, Dr. R. C. Main, Santa Barbara.
- Santa Clara, Santa Clara County, Dr. C. M. Burchfiel, San Jose.
- Oxnard, Ventura County, Dr. J. A. King, Ojai.
- Santa Paula, Ventura County, Dr. J. A. King, Ojai.

Trichinosis from Bear Meat.—Trichinosis is generally contracted through the consumption of infected raw pork meat. Cases of trichinosis from use of bear meat are not common. A small group of cases contracted from such meat was reported in California last year, and during the present month a larger group of cases due to this source has been reported.

On September 16 a Vallejo youth killed a bear in Trinity County. A number of people ate steaks, roast and liver from the bear and the remainder was jerked and smoked. A San Francisco man took a portion of the jerked meat home with him and the remainder was brought to Vallejo. This meat was distributed among families in Vallejo, San Francisco and Oakdale. As a result of eating this jerked bear meat sixteen cases of trichinosis have been reported. The youth who shot the bear died October 13. Cases from this source occurred in Vallejo, San Francisco and

Oakdale. Some of the cases are extremely severe and it is possible that more fatalities will result. A sample of the meat sent to the state laboratory was found positive for trichinella spiralis. As a matter of safety it would appear that all bear meat should be thoroughly cooked before eating.

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA

By CHARLES B. PINKHAM, M. D. Secretary

Results of Board of Medical Examiners' Examination Sacramento, October 20 to 22, 1931

Charles B. Pinkham, M. D., secretary of the California Board of Medical Examiners, reports the written examination held in Sacramento October 20 to 22, 1931.

The following medical colleges were represented:

College	PASSED	Year of Graduation	Per Cent
Baylor University College of Medicine.....	(1930)		84 6/9
College of Medical Evangelists.....	(1931)	80 7/9, 84 8/9	
		79 3/9, 80, 83 1/9	
Cornell University Medical College.....	(1931)		82 8/9
Creighton Medical College	(1931)	84 6/9, 84 6/9	
		79 2/9, 77 2/9	
		79 1/9	
M. R. C. S., England.....	(1908)		78
L. R. C. P., London.....	(1908)		
Harvard University Medical School.....	(1926)	86 4/9	
	(1930)	83 2/9	
Indiana University School of Medicine.....	(1930)	86 8/9	
Northwestern University Med. School.....	(1930)	85 2/9	
	(1931)	78 5/9	
New York Homeopathic Medical College and Flower Hospital.....	(1930)	85	
Rush Medical College.....	(1928)	83 1/9	
	(1929)	75 3/9, (1931) 85 8/9	
St. Louis University School of Medicine	(1929)	78 3/9	
	(1930)	80 1/9, 82 7/9	
Stanford University School of Med.....	(1929)	85 2/9	
	(1931)	82 8/9, 86 7/9, 80 3/9	
University of Amsterdam Medical Faculty, Holland	(1901)	*74 1/9, 17 % for yrs. of practice	
		Total 91 1/9	
University of Colorado School of Medicine	(1931)	85 8/9, 85 7/9	
		86 5/9	
University of Edinburgh Faculty of Medicine, Scotland.....	(1918)	*72 6/9, 4 % for yrs. of practice	
		Total 76 6/9	
University of Irkoutsk Medical Faculty, Russia	(1923)	*74 2/9, 5 % for yrs. of practice	
		Total 79 2/9	
University of Manitoba Faculty of Medicine, Canada.....	(1924)	76 3/9	
University of Nebraska College of Medicine	(1930)	84 6/9	
University of Oregon Medical School.....	(1930)	77 5/9	
University of Tennessee College of Medicine	(1930)	79 4/9	
University of Wisconsin Med. School.....	(1928)	84 4/9	
	(1931)	87 7/9	

College	FAILED	Year of Graduation	Per Cent
Kentucky University Medical Department	(1904)	53 3/9	
University of Bordeaux Faculty of Medicine, France	(1930)	68	
University of Illinois College of Medicine	(1931)	72 7/9	
Washington University School of Medicine	(1929)	72 5/9	

LIST OF THE SUCCESSFUL APPLICANTS

- William Lyle Allred, San Francisco.
- Ray Cook Atkinson, Oakland.
- Wilbur Clifton Batson, Westwood.
- Charles Benninger, Jr., San Francisco.
- Frederick Sweet Bruckman, San Francisco.
- Alfred John Cantoni, San Diego.
- Gladys Clara Carleton, Inglewood.
- Cecil Crafts Cole, Long Beach.
- George Horace Coshow, Santa Barbara.
- Clarence Edmund Crowley, Jr., Santa Maria.
- John R. Daly, San Francisco.
- Horace Welles Doty, Los Angeles.

*Credit for years of practice.

Thomas Jefferson Dozier, San Leandro.
 Albert R. Egan, San Francisco.
 Henry Gibbons III, San Francisco.
 Kenneth William Gordon, Los Angeles.
 Alfred George Huenergardt, Los Angeles.
 Clarence Walter Kilcher, Los Angeles.
 Orval LeRoy Kinkle, Los Angeles.
 Axel Ludwig Lindberg, Los Angeles.
 Everette Lee Lochen, San Francisco.
 James Anthony McHugh, Stockton.
 Patrick Henry McHugh, Sacramento.
 Edwin Ewart McNiel, San Leandro.
 Willard Merle Meininger, San Francisco.
 John Johnston Miller, Jr., San Francisco.
 John Howard Moe, Stockton.
 Albert Daniel Neubert, Fort Dodge, Iowa.
 Clayton Hall Palmer, Los Angeles.
 Richard Kenneth Pierce, Los Angeles.
 Robert Paul Quirmbach, San Francisco.
 James William Ravenscroft, San Diego.
 Erving Lysander Rogers, Laguna Beach.
 Ambrose Joseph Ryan, Sacramento.
 Cornelis Schagen, Oakland.
 Alfred Joseph Schwarz, San Francisco.
 John Taylor Steele, San Francisco.
 Olga Constantinova Turitsina-Lordkipanidze, San Francisco.
 Richard Joseph Wagner, San Francisco.
 Henry Ludwig Wollenweber, Los Angeles.
 †Alfred Henry Valentine St. John.

News Items, January 1932

On November 20 Governor Rolph announced the appointment of Burt S. Stevens, M. D., San Francisco, as a member of the Board of Medical Examiners, vice H. A. L. Ryfkogel, M. D., term expired.

"The Arrowhead Remedies Company of Chico, headed by Williams Jennings Conway, 'Indian herb doctor,' was today without a permit to issue its capital stock. Organized recently with a capitalization of \$25,000, the company has been denied a permit by the State Division of Corporations to issue stock to its incorporators in exchange for assets. . . . In a statement summarizing the results of an investigation of the case, the Corporation Division remarks: 'From the information that has been obtained from sources outside the application, it appears this corporation has been formed for the purpose of enabling Conway to avoid further difficulties with the State Medical Board.' . . . The Attorney-General recently advised the Corporation office it could use its discretion on Conway's case in either approving or denying the application to issue stock" (Sacramento *Bee*, November 24, 1931).

Reports relate that S. L. Chong, Chinese herbalist, on November 17, 1931, in the Police Court of Fresno, California, pleaded guilty to a violation of the Medical Practice Act and was sentenced to serve 180 days in the county jail, commitment being withheld pending his good behavior and that he no longer violate the Medical Practice Act.

"M. E. Chow, Fresno herb doctor, was fined \$100 yesterday by Police Judge James G. Crichton on a charge of violating the State Medical Practice Act" (Fresno *Bee*, November 20, 1931).

The eyesight swindlers have evidently transferred their attentions to the State of Washington, judging from a report in the December issue of *The Health Messenger*, published by the Public Health League of Washington, wherein is related that "A man calling himself 'Dr. Harry Chandler Coby, Oregon State Specialist of Portland State Hospital, Oregon, and having an office in Olympia,' called at the residence of R. H. Might, Joyce (Clallam County, Washington), examined his eyes and told Might that he had a 'transparent cataract.' Might was persuaded to go to Portland to have it removed, upon being told that blindness would inevitably result if he did not do this. Mr. Might, in making complaint, says: 'Then after some conversation he removed what appeared to be a piece of rubber from the eyeball and said his charges were \$150.' He actually was paid \$65. Need-

† Final disposition withheld pending completion of application.

less to say, no one by the name of Coby is licensed to practice any of the healing arts in this State, nor connected with the Portland Hospital." The many pending California felony warrants evidently have discouraged activities of the eyesight swindlers in this State.

Reports relate that C. P. Tom, Chinese herbalist, pleaded guilty in the Justice Court, San Luis Obispo, on December 3 to a charge of violation of the Medical Practice Act and was sentenced to serve sixty days in the county jail, sentence suspended on condition that he no further violate the law.

The Investigation Department reported that Ysai Yeck, Chinese herbalist, pleaded guilty in police court, Fresno, on November 18 to a charge of violation of the Medical Practice Act, and paid a fine of \$100.

A New Era.—In October, 1923, St. Louis and Missouri supplied front-page news for the press of the country when the St. Louis *Star* exposed the medical diploma mill which had its headquarters in the St. Louis College of Physicians and Surgeons. Here one could buy a diploma for whatever sum he might scrape together. Ultimately, the Missouri Supreme Court revoked the charter of the school for fraudulent practices. Another school in Missouri was involved in the medical diploma mill, the Kansas City University of Physicians and Surgeons and the Supreme Court revoked the charter of that school on similar grounds. The ink was scarcely dry on the mandates of the court before new charters had been obtained.

Eight years later, that is to say, in October 1931, a petition was filed with Honorable William H. Killoren, Judge of Division 5 of the Circuit Court of St. Louis, asking that a pro forma decree of incorporation be granted the National College of Medicine and Surgery in St. Louis. Judge Killoren appointed former Judge Harry E. Sprague amicus curiae and to Judge Sprague may be accredited the inauguration of the new era. It is not front-page stuff, but to the medical profession it is a most gratifying indication that our efforts to clean up the medical college field have not been fruitless. The issuance of a pro forma decree of incorporation of a philanthropic or educational institution has hitherto been a very perfunctory action by the courts. When, however, Judge Sprague read the petition for the incorporation of a medical school which frankly stated that the intention of the petitioners was to establish a low grade or grade B school he was mindful of the incalculable damage that the people had suffered by the machinations of the owners of the two schools whose charters had been revoked. Instead, therefore of pursuing the usual tactics of the amicus curiae and putting his o. k. on the petition after a cursory examination he made a searching investigation of both the petitioners and of the purposes of the college.

In his exhaustive investigation Judge Sprague questioned the petitioners most searchingly; he also conferred with the officers of the Missouri State Medical Association and the St. Louis Medical Society and with Dr. E. P. North, St. Louis, a member of the Council on Medical Education and Hospitals of the American Medical Association, and Dr. James Stewart, Jefferson City, secretary of the state board of health. He found that none of these organizations recognized a class B medical school; that if the decree were issued and the school became established it would then be investigated and rated according to the minimum standards of the American Medical Association and the state board of health; that if the school failed to meet these minimum standards it would not be approved by the American Medical Association nor by the state board of health; that, in such event, the graduates, if any, would be debarred from taking the examination for a license in practically all the states in this country.

Under these circumstances Judge Sprague recommended to the court that the decree be not issued.—*Journal of the Missouri State Medical Association.*

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ABRUPT SLOWING OF THE CEREBRAL CIRCULATION*

By THOMAS G. INMAN, M. D.
San Francisco

DISCUSSION by Walter F. Schaller, M. D., Samuel D. Ingham, M. D., Los Angeles.

IN reviewing the histories of a group of patients with arteriosclerosis in whom transient cerebral symptoms occurred frequently, it was noted that the attacks followed a change to the upright position in many of the cases. The greatest number came in the morning on arising, or shortly afterward. In others the attack came when fatigue was a noticeable factor. These circumstances suggested a similarity between this group, and another series of observations in younger individuals whose complaint of dizziness and fainting when standing quietly was found to be associated with a greater than normal fall in systolic pressure on standing after lying.¹ In the patients with arteriosclerosis, where previous observations had been noted, it was found that the systolic pressure was lower than these individuals were accustomed to show when free from symptoms. With a return of the systolic pressure to the former level the symptoms disappeared.

In the younger group the dizziness and fainting had been attributed to a cerebral anemia induced directly by a diminution in the cardiac output, the effect of gravity in the presence of a poorly compensating splanchnic vasomotor system, and a weak somatic musculature, determining an excessive accumulation of blood in the veins of the abdomen and lower extremities.

HOW ARE CHANGES IN CEREBRAL CIRCULATION BROUGHT ABOUT

That the symptoms exhibited in both groups are due to disturbances in the cerebral circulation seems reasonably certain, but a diversity of opinion exists as to the exact manner in which the effects are brought about. Is the condition in the brain at these moments one of anemia in the sense in which the term is generally used? Or does the existence of certain known peculiarities in the cerebral circulation demand another explanation?

Changes in the rate of blood flow through the brain take place under normal conditions, but pass unnoticed by the individual as long as the variations remain within certain limits. But when

from any cause the systolic pressure is abruptly lowered, or when the quantity of blood discharged by the left ventricle is suddenly diminished, symptoms, emanating from disturbances in brain function, may result.

There has been much speculation as to what happens within the cranium at these critical moments. According to Leonard Hill, "The cerebral circulation is controlled by a weak (if any) local vasomotor mechanism and passively follows the changes in the general circulation. . . . When in any part of the body the arteries contract, the blood volume in the area diminishes, the veins empty, the whole organ shrinks in size. Since in the closed cranium the brain cannot shrink, the cerebral capillaries must become congested with venous at the expense of arterial blood if the cerebral arteries are constricted."²

More recent investigators as Florey,³ Forbes and Wolff,⁴ Stanley Cobb,⁵ and others, have made direct observations of the pial vessels and have noted that the diameter of these vessels is influenced by thermal, electric, mechanical, and chemical stimulation. It has not been shown, however, that under the influence of a fluctuating blood pressure these vessels do more than passively follow the changes in the general circulation.

The vessels of the basal perforating system cannot be directly observed during life; post-mortem study and disturbances in cerebral function alone suggest their probable behavior. The strikingly thin walls with relative poverty in elastic elements and the absence of a demonstrable nerve supply mark these vessels as possessing peculiarities not common to the general vascular system.

Hassin has shown that the pial vessels are abundantly supplied with nerves, but none could be demonstrated on the vessels within the brain parenchyma.⁶

AUTHOR'S EXPLANATION OF CEREBRAL CIRCULATION CHANGES

It was suggested in a paper published in 1920 that "The more or less mild phenomena characterized by transient attacks of dizziness, amnesia, aphasia, muscle paresis, paresthesias and the like, occurring in patients with generalized arteriosclerosis, either with or without associated high blood pressure, seem to depend upon a more or less abrupt slowing of the cerebral circulation carried to a degree at which a localized area of the brain is temporarily deprived of its customary amount of arterial blood."⁷ Following a sudden diminution in systolic pressure or a rapid de-

* Read before the Neuropsychiatry Section of the California Medical Association at the sixtieth annual session, San Francisco, April 27-30, 1931.

crease in the amount of blood discharged by the left ventricle, a slowing of the blood stream occurs in the cerebral arteries with a consequent passive congestion of the brain capillaries, both arterial and venous. It is not unlikely that all of the symptoms ascribed to cerebral anemia are due to the effect upon the brain of this arteriovenous capillary stasis.

Under normal conditions, an immediate increase in the heart rate neutralizes the diminution in minute volume. Further compensation is assured by the numerous anastomoses which exist between the intracranial vessels and those of the face, head, and neck. Within certain limits these external vessels may supply immediate needs brought about by deficiencies in the internal circulation. But, in the presence of myocardial weakness, loss of vasomotor tone, inadequate support of the splanchnic circulation or generalized muscular weakness compensation may be insufficient or too long delayed.

EFFECTS UPON THE BRAIN

The effect upon the brain depends upon the condition of the cerebral vessels. In the young and in individuals without vessel sclerosis the slowing in the capillary system is widespread and may be followed by dizziness, tinnitus, fainting, or by a generalized convulsion. But when sclerosis has begun the sharp angulation of the arterial trunks at the base of the brain becomes a determining factor and that vessel into which the blood is driven with the greatest difficulty bears the brunt of the diminished pressure and in its terminal branches the flow is excessively retarded. When pressure fails, the top of the arterial tree feels the loss first.

Here the effects will be more localized and cause, in addition to the dizziness and tinnitus, amnesia, aphasia, muscle paralysis and the like. These symptoms will be transient if compensation is soon brought about, their duration depending upon the duration of the slowing. If conditions are right for thrombus formation, permanent blocking of the feeding vessel may occur.

ETIOLOGIC FACTORS IN ARTERIOVENOUS CAPILLARY STASIS

Whether the effects upon the brain in arteriovenous capillary stasis are brought about by waste products collecting in the venous blood, to lack of fresh supplies of oxygen, or whether, in addition, depressor substances collect in sufficient amounts to further lower arterial pressure, cannot be stated definitely at this time. It is noteworthy, however, that A. Leimdoerfer⁸ observed that acetone extracts made from the ventral part of the mid-brain injected into the jugular vein of dogs caused a marked decrease in blood pressure and that extracts prepared in the same manner from the basal ganglia caused such a rapid decline in blood pressure that the animals died.

As a purely physiological event, not necessarily determined by underlying structural disease, abrupt slowing of the cerebral circulation

seems to depend upon an imperfect adaptation of the individual to the vertical position. Slight departures from the normal are seen in the weakly muscled, viscerotonic individuals unable to long maintain the erect posture without experiencing sensations of fatigue, giddiness or vertigo, persons who faint at parades, in art galleries, and crowded gatherings.

THE PHENOMENON OF TRANSIENT HEMIPLEGIA

These peculiar temporary events are incidents in the lives of individuals past middle life, in whom arteriosclerotic changes with narrowing of the vessels has taken place. The attacks last from a few hours to several days, and the early recovery, though welcome to those most concerned, may be the cause of much chagrin to the medical attendant if in an unguarded moment he has given a gloomy prognosis.⁹

Spasm of one of the cerebral arteries has been considered by many observers to be the cause of these transient paralyses. The condition has been associated with Raynaud's disease in the extremities in a few instances. The coincidence, however, is not frequent.

But there is much evidence in support of the theory expressed in 1920⁷ to the effect that abrupt slowing of the cerebral circulation is responsible for many of these attacks. The arteriosclerotic vessels have lost their normally feeble power of contractility with the destruction of their muscular coat and in some cases that have come to section such extensive atheromatous changes have taken place as to exclude the possibility of spasm.

In an individual with arteriosclerotic changes in the cerebral vessels sufficiently advanced to act in increasing peripheral resistance, any factor which suddenly decreases systolic pressure may determine a slowing of the blood current in the cerebral capillaries. For instance, the attacks frequently occur upon standing after sitting or reclining. Occasionally in susceptible individuals the paralysis may be reproduced by causing the patient to stand quietly after arising from the recumbent position. The most frequent contributing factors are those responsible in cases of cerebral arterial thrombosis, neuromuscular exhaustion, sudden diminution in the amount of body fluids as in hemorrhage and diarrhea, bodily injuries, worry, undernourishment imposed by economic necessity or by injudicious limitation of food on the discovery of a heightened blood pressure.

The escape from thrombosis in these cases of temporary paralysis may be due to the fact that the vessel intima is healthy.

From my own experience I am inclined to believe that, in most instances, some permanent injury to the brain follows upon the transient hemiplegias. There may be only a slight acceleration of the ageing process. The mental faculties become a trifle less acute, and the physical strength appreciably diminished. Spielmeyer¹⁰ states that he has observed foci of alterations not

only within reach of the arteriosclerotic process, but also in parts of the brain which are provided for by intact arteries.

CEREBRAL ARTERIAL THROMBOSIS

The most serious end result of the slowing process occurs when conditions are right for the formation of thrombi within the cerebral vessels. If the affected vessel supplies important areas, the resultant paralysis is disabling and frequently permanent. Preëxisting disease of the intima, such as infected areas or calcareous plaques, may determine the location of a thrombus, but perhaps this provision is unnecessary. It is quite possible that repeated slowing, by interfering with the proper nutrition of the vessel wall, may bring about a condition suitable for thrombus formation. At any rate, where permanent paralysis supervenes upon repeated attacks of transient hemiplegia the distribution of the paralysis is usually the same.

If the observations upon which the foregoing remarks are founded have been correctly interpreted, it would seem that the factors which bring about cerebral symptoms in arteriosclerosis are similar to those acting in individuals with relaxed abdominal musculature and poorly compensating splanchnic vasomotor systems. The symptoms are believed to be due to the arteriovenous capillary stasis induced by a slowing of the blood stream within the larger vessels.

The dangers which may follow attempts to further lower systolic pressure are self-evident.

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DISCUSSION

WALTER F. SCHALLER, M.D. (909 Hyde Street, San Francisco).—The comparatively greater frequency of brain softening, as compared with brain hemorrhage, and the difficulty in clinically differentiating these pathologic conditions justifies the emphasis placed by Inman on a better understanding of the mechanism of slowed cerebral circulation occurring in individuals with arteriosclerosis. A higher than normal blood pressure is not necessarily against encephalomalacia,

which further complicates the differential diagnosis. It is my impression, not based on any statistical series, however, that individuals in normal health with a relatively low blood pressure are more subject to such accidents. Such a history, if obtainable, is important. Inman has been occupied with this subject since 1912, and his paper of 1920 has received recognition in Osler's medicine and in more recent confirmation by Naffziger and Fleming in 1927. The recognition of the symptom complex is of great therapeutic promise, for by taking measures to raise the intracranial pressure it may be possible to avert serious brain damage or paralysis. Therapy is obviously quite opposite to measures employed in cases of brain hemorrhage. Striking results have been achieved by increasing the venous pressure by posture, so that the body inclines with the head down; by bandaging the extremities, or application of a tight abdominal binder; by massage, and by forcing fluids. These physical measures are probably more important than drug therapy, although I have employed caffeine, strychnia, digitalis, and ephedrin. In discussing this subject personally with Inman, I found he is of the opinion that most of the benefit derived from corsets, belts, and binders for enteroptosis is due to relief of splanchnic venous stasis and increase of arterial pressure.

That similar changes occur in the spinal cord is evidenced by increasing reports in the literature of occlusion of spinal arteries, notably the anterior spinal artery, causing a condition described as acute or transverse myelitis, a term which is a pathologic misnomer, but justified by long usage. Here we have the combination of arteriosclerosis, hypotension, and stasis quite comparable with conditions observed in the brain.

Abrupt slowing of the cerebral circulation frequently occurs in brain concussion and contusion. The pathologic picture in the cerebral vascular tree observed in patients who succumb is dilatation of vessels with definite evidence of stasis, shown by edema and diapedesis. This condition, if prolonged, may result in serious brain damage and lesions, and has been called by Ricker, on the basis of animal experimentation, "prestatic circulation." He found that concussed animals examined immediately after death showed no hemorrhages, and those found later were definitely not by rhesis. In such abrupt slowing of the circulation by trauma similar therapy to that employed in circulatory exhaustion and insufficiency states is indicated.

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SAMUEL D. INGHAM, M.D. (727 West Seventh Street, Los Angeles).—The danger of high blood pressure as an etiologic factor in vascular cerebral accidents is well recognized, but comparatively little attention has been given to low blood pressure and consequent slowing of the arterial stream in the cerebral vessels. Although the two types of cases referred to by Doctor Inman both manifest evidences of cerebral ischemia on assuming the erect position, their underlying pathology is quite different. In the younger patients showing symptoms of faintness and dizziness there is usually no important cerebral problem. In the older patients with arteriosclerosis it may be assumed that the cerebral arteries are damaged and that any marked variation in blood pressure, either upward or downward, may result in serious accident. It is possible that fairly well-marked cerebral symptoms may appear in such cases and disappear after a period without thrombosis occurring. But where advanced cerebral arteriosclerosis exists a transient motor weakness or aphasia usually signifies a small thrombosis. After a few episodes of this nature, symptoms of pseudobulbar palsy often supervene.

Patients with arteriosclerosis probably require a higher blood pressure than normal individuals to maintain a good circulatory balance, and in treating them we must guard against a fall as well as against a rise of pressure.

CYSTO-URETHROSCOPIC RESECTION OF THE PROSTATE

By HARRY W. MARTIN, M. D.
Los Angeles

DISCUSSION by Robert V. Day, M.D., Los Angeles;
A. A. Kutzmann, M.D., Los Angeles.

WHAT is the best procedure to alleviate bladder-neck obstructions, both contractures and prostatic hypertrophy?

This question has been asked many times, and many methods have been submitted with varying tendencies every two or three decades. Probably the first mechanical attempt was with a small prodding stick for the purpose of producing a permanent fistula. In 1837 Mercier devised an instrument to excise the bar somewhat analogous to our present-day punch, but which did not survive because the cystoscope had not yet been introduced and a proper diagnosis could not be made with any degree of regularity.

In 1874 Bottini used the galvanocautery, with the object of avoiding hemorrhage which was a troublesome complication of the Mercier operation. In 1897 Freudenberg improved the Bottini cautery, and at a later date Young further modified the galvanocautery apparatus.

An entirely new procedure was introduced in 1910 by Beer, namely, carrying a high frequency current (Oudin or monopolar) by means of an insulated wire through the catheterizing cystoscope. In 1913 Stevens introduced the D'Arsonval current instead of the Oudin.

In 1909 Young devised the punch for the removal of bars, and later used the cautery to control the hemorrhage. Since that time there have been many modifications. Bugbee, Caulk, Luys, Bumpus, McCarthy, Collings, Stern, Tolson, Mathé, and many others have contributed. A short time ago Day devised a visual punch which made use of preliminary cauterization with an insulated needle activated by the D'Arsonval current to prevent hemorrhage, and which has been very successful in cases in which the lobe is limited in size, especially in small middle lobes.

In order to determine the type of operation to be selected, it is first necessary to visualize what the requirements are for endoscopic resection of the bladder neck.

The primary requirement is to remove obstruction with the least morbidity and the least danger, with the least pain and discomfort, and the shortest period of convalescence consistent with freedom from risk, and good end results.

It is generally conceded that median bar and contracture, and certain types of carcinoma are suitable, but the road has ended at this place for most urologists. The question arises as to whether moderate size median lobes, early bilateral adenomatous hypertrophy, and large bilateral adenomatous hypertrophy can be included.

A NEW INSTRUMENT AND PROCEDURE

McCarthy has devised a new loop for use in the panendoscope, but which depends on the cur-

rent being furnished by the new McCarthy surgical unit which has been developed by Wappler. This unit is unquestionably the most efficient cutting power plant available with a vacuum tube generator producing sustained oscillations of exceedingly high frequency.

This resectoscope and loop can take longer bites and more pieces in a shorter time than the punch can take, and controls free hemorrhage much more satisfactorily than any instrument yet devised. Undoubtedly, improved electrodes will appear from day to day. Secondary hemorrhage is to be expected in a small percentage of cases in any type of coagulation hemostasis.

Can we remedy, by resection, early bilateral hypertrophy? If so, we are doing a real work and saving a great deal of suffering. Men reaching the stage of advanced prostatic hypertrophy have also passed through the period of bladder changes with its ensuing trabeculation and later residual urine with changes in renal back pressure. If these cases could be remedied before such changes occur the relief would be obvious.

Can resection remedy large bilateral adenomatous hypertrophy, and if so, is it superior to our present operations?

The question arises as to what proportion of the bulk of an adenomatous prostate, when retention is present, is due to congestion. This is easily shown by putting the prostate at rest by means of suprapubic cystotomy or trocar operation, and noting how much smaller the prostate is after drainage.

Now the question arises as to how much tissue should be removed. With the McCarthy instrument, and several other modifications of McCarthy and Stern, as much tissue can be removed at one sitting, as the operator desires, but stress should be placed on not removing too small an amount of tissue, as the author believes this has been a fault with any type of punch operation.

It is perhaps even more necessary to observe all the rules in preoperative preparation than for prostatectomy in order to avoid postoperative suppurative nephritis and multiple abscesses in the kidney.

Hemorrhage is a minor factor to be considered, as each bleeding vessel can be coagulated under direct vision.

The ultimate niche or field of endoscopic resection is positively unanswerable at the present moment. Not enough urologists have as yet used the procedure, and those comparatively few who have adopted the method have not awaited a sufficient postoperative period to even roughly evaluate the procedure.

We cannot, on the one hand, swallow at one gulp the amazing reports of their results nor, on the other hand, blandly ignore and discard their reported results and observations. It would seem that one is on the safe ground to predict that at least 25 or 30 per cent of hypertrophies will be suitable for this procedure. As experience and technique, with the inevitable and rapid progress in the matter of improved instruments, is developed, it would not be surprising if 50 to 60

per cent of hypertrophies would become amenable to satisfactory management by resection.

One can hardly visualize resection as the best method for the huge hypertrophies, no matter if this is possible. The two or three hours admittedly necessary, even by the enthusiasts performing such a procedure, on a large hypertrophy might well tax an old man more than a prostatectomy.

McCarthy believes that men who have reached the prostatic age with beginning hypertrophy of the prostate, who are troubled with frequent nocturia, which is not caused by kidney pathology, should have a resection of their prostates, even though no residual be present. He believes that if this procedure is performed early, then, in the future, prostatectomy will be limited to a small percentage of cases.

In inoperable carcinoma the best hope of relief has been permanent drainage, but it has been proved that relief can be given in a certain considerable percentage of cases by means of the McCarthy or Stern electrode, and that the patients are far more comfortable and, unless metastases form in other parts of the body, can go for a long period of times without serious obstruction.

COMPLICATIONS

Epididymitis is a complication which occurs in a small percentage of patients in whom infection is present and any urethral instrument is used. It can be prevented by doing a preliminary vasectomy.

Pyelonephritis is usually present in patients in whom residual urine has been present, and must be treated as in any other case.

Chills and fever may accompany any urethral instrumentation, although the theory is advanced that it is not due to instrumentation, but rather to an already existing infection of the kidney.

RESULTS IN PATIENTS TREATED

We have operated on twenty-five patients in the past six weeks. These cases have consisted of contractures, bars, middle lobe and lateral lobe cases, and have included adenomas. In each instance the patient has been given relief and, while sufficient time has not elapsed to get enough data, it is interesting to note that the residual urine has dropped from 200 to 10 cubic centimeters in several patients, from 300 to 5 cubic centimeters in two patients, from 600 to 10 cubic centimeters in one patient, and, what is more interesting, in two patients who had definite adenomas the residual dropped from 300 to 5 cubic centimeters in one patient, and from 200 to 10 cubic centimeters in the other.

TECHNIQUE

The patient is given spinal, sacral or caudal anesthesia, and placed in the usual cystoscopic position. The bakelite sheath is first introduced carefully so as not to cause traumatic bleeding. The loop, with obturator, is then introduced. The verumontanum should be located before any tissue is removed as this organ is the anterior guide, as it is always the apex of the gland.

The strips should now be removed and should be done rather rapidly and under perfect vision. The small bleeding points can be controlled by touching with the same electrode, or the coagulation current can be used. At the end of the procedure the bladder should be irrigated, and it will be noted that the color of the urine will only show a faint trace of bleeding.

A 22 or 24 F., or larger, catheter can be introduced, either through the sheath or after removal of sheath, and patient sent to bed. The usual time necessary for the patient to remain in the hospital will be about three or four days.

SUMMARY

1. This method of removing the prostate will encourage many patients to seek earlier relief, before actual damage is done to other organs.

2. The fear of having a prostatectomy, which has hindered many, can now be overcome.

3. Hemorrhage, which has been a disturbing factor, is now of second importance.

4. The removal is done under direct vision and is accurate.

5. It is superior to cystotomy in inoperative carcinoma.

6. Its economic factor is of vital importance, as it reduces hospitalization to three or four days.

7. Huge hypertrophies should not be removed by this method unless the patient is unusually robust.

8. Preoperative preparation is as necessary as for a prostatectomy.

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DISCUSSION

ROBERT V. DAY, M. D. (1930 Wilshire Boulevard, Los Angeles).—With just the beginning of a veritable flood of articles on a subject of such revolutionary character as transurethral prostatic resection, and with sensational claims by a few enthusiasts of almost miraculous results, it is inevitable that other practitioners besides urologists will want to hear, first-hand, from their own local colleagues what are likely to be its immediate and remote results, its field of usefulness, its limitations, its deficiencies, its dangers, and sequelae. No one in the United States seems disposed to claim such 100 per cent results as Davis has reported in the *Journal of the American Medical Association* for December 5, 1931, in a series of nearly three hundred personal cases. According to Davis, the operation of prostatectomy is no longer needed. Prostatic resection does the trick—scarcely any time lost, no danger, no mortality, no reactions, no bleeding, and entirely satisfactory end results. Davis certainly was very fortunate, having encountered epididymitis in only two and one-half per cent of his cases, not to mention the frequent occurrence of all sorts of dangerous degenerative diseases of the very aged. In all sincerity, however, and I wish to stress the conviction that not for a moment should we forget that Doctor Davis, in a most unusual degree, possesses all the masterfulness, determination, skill, and judgment based on study, thought, and experience to make his operations successful and safe. Few can, or will, duplicate his results. But even an approximation is worth all the effort expended, and no one unwilling to make a sustained and tremendous effort over a considerable period of time, should adopt resection, for nothing less will suffice.

On the other hand, Alexander Randall and a host of other urologists condemn the procedure on theoretical grounds without even giving it a first-hand

trial. Somewhere between these extreme views must be a correct answer, but just where? Time alone—after repeated periods of trial and error—will give the adequate answer to this question. Certainly there is sufficient proof already to show that it has, at its worst, a very considerable and definite field of usefulness; but in dealing with advanced hypertrophies it is more than a question of whether or not we are able to measurably and adequately relieve a patient by prostatic resection, but we should determine what is the best procedure in each particular case—orthodox prostatectomy or resection, considering the entire problem from every standpoint: immediate danger, expected end-results, reasonable comfort postoperatively, etc.

The time-saving factor has perhaps been over-emphasized. That is to say, the preoperative preparation period by indwelling catheter, which often covers two or more weeks, cannot possibly be made shorter than that requisite for orthodox prostatectomy preparation. No one even suggests it. In fact, all the protagonists of resection, including Davis, stress the absolute necessity of an adequate preoperative preparation period. Leaving the hospital in three or four days after an operation at a big clinic in a small city is quite a different affair from that in a large city. In the small city, the patient usually comes from a distance, and after leaving the hospital lives in a hotel situated a few doors from the hospital and is under daily observation. For all practical purposes he is still a convalescent hospital patient. But in a large city I should conceive it to be negligent to allow such a patient to return to his home in three or four days unless he could be there observed by trained and competent persons. Finally, at the very most, only two weeks' hospital residence could be saved, and that at a time when special nurses could be dispensed with.

The factor of persistent and dangerous primary hemorrhage cannot be lightly dismissed in an off-hand manner. Serious bleeding sometimes continues, in which case a suprapubic cystotomy should be performed and the bleeding controlled by packing or other means. This should not be postponed until the patient is bled white. The necessity for courage to make a safely early decision on this matter is obvious.

Personal and confidential communications from two noted eastern urologists, who are intimate friends of the writer and who have been in the forefront of resection procedures, and who have each performed about one hundred resections, have been received by the writer. They said that they had plenty of grief, including a mortality equal to that of prostatectomy or even greater, in their first fifty cases. So it is not, therefore, an operation to be lightly undertaken except by experienced and skilled experts. It is generally agreed by the experts, who have done the greatest amount of work of this kind, that one must perform at least twenty-five to fifty resections before one becomes proficient, and then only if he is already the possessor of great cystoscopic skill and patience. No one who has performed many resections and observed the postoperative course and the results, can seriously disagree with this statement. Approximately one-half of the Los Angeles urologists are there practicing resection in a considerable number of cases at both free and private clinics. We have attempted to be helpful and pool our data. This, I am sure, has been an invaluable aid to our progress, and I am confident both Doctor Martin's paper and my discussion would be accepted as their own since it is based on the pooled experiences of a dozen or more urologists who have discussed the problem at many conferences and clinics.

After sounding the above warnings learned in the hard school of experience, I believe the operation has a large field of usefulness which will be widened with time, with more experience, and especially the improvement of instruments. With full appreciation of what has already been accomplished, there has been, as yet, too little thought and research devoted to the mechanical side of these appliances used in resection. Indeed, at present they are all more or less primitive. Foley of St. Paul, and others, including the writer,

have been diligently working on new and modified designs to overcome some of the disadvantages, and it is hoped something will be evolved from these efforts.

On the other hand, the so-called McCarthy surgical unit, referring to the machine supplying the cutting current, is well-nigh perfect. If it should be made to cut with any more facility, the hemostatic factor would inevitably suffer. All other instruments of this type on the market produce too much cautery damage and are simply refinements of the high-frequency machines heretofore made and in no way approach the efficiency of the McCarthy surgical unit.

Conclusions.—1. The method will not come into general use. Only a few will have the patience, clinical material and determination to develop the skill necessary in order to obtain adequate results. Even with expert operators the employment of a resection instead of prostatectomy in advanced hypertrophies will have to be left to the study of each particular case for decision as to the type of operation which would be preferable from all standpoints in that particular patient.

2. The operation's dangers, drawbacks, and deficiencies must not be minimized; nor should it be forgotten that orthodox prostatectomy, likewise, brings its tribulations.

3. The ultimate results must be gauged in a check-up by an unofficial jury of unbiased urologists and by the examination of a large number of cases after a few years have elapsed since the operations.

4. What will eventually evolve from the prostatic tissue left behind is a query which will probably be answered in little less than a decade.

5. In an improved form, transurethral prostatic resection is here to stay, but its limitations will be more definitely defined with increased experience in its use.

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A. A. KUTZMANN, M. D. (316 Wilshire Medical Building, Los Angeles).—Doctor Martin has given an excellent conservative review of this newest method of transurethral bladder-neck surgery. The field of electrosurgical treatment of vesical-neck obstructions is new, yet old. We have today at our disposal a high frequency electrical unit, the cutting efficiency of which has heretofore never been attained. This type of urethroscopic resection began with the work of Maximilian Stern some seven years ago. Caulk, however, has reported some good results in the last twelve years with his cautery punch in some types of smaller prostatic hypertrophies as well as Bottini, Young, Collings, and others who had attempted similar procedures. Stern, however, was forced to give up his method of electroresection because of the poor results obtained, probably due to the inefficiency of both his instrument and electric unit. Davis, the present advocate, took up the Stern instrument and, being possessed of much technical skill and knowledge, evolved his present resectoscope, which appears to be a more successful instrument. It is the principle of his method that we are trying out at present. My experience is limited to some eight cases utilizing the McCarthy electrode loop and high frequency machine. Heretofore all methods of punching the vesical neck have limited themselves chiefly to one type of pathology, namely, the median bar and contracture. However, we now have a method that is more ambitious in that an attempt is made to include also a certain number of selected cases of true prostatic hypertrophy, that is, an enlargement of both lateral and middle lobes. It is quite possible to resect an appreciable amount of prostatic tissue by this method. In fact, probably the entire obstructing part of the hypertrophied prostate can be resected, *i. e.*, that portion which projects into the vesical neck and posterior urethra. I have removed as much as nearly 15 grams and 11 grams of tissue in two respective cases. Davis has resected over 25 grams. When it is considered that 30 to 35 grams may be the size of the average hypertrophied prostate removed by prostatectomy it can be seen that it is possible to remove an appreciable amount by this method. It stands to reason that it is impossible to achieve a complete removal by

this method. The method is time-consuming, necessitating anywhere from one to two hours to do, no matter how skillful the operator is. This applies only to prostatic resections. In the matter of median bars, contractures and small middle lobe resection, this method, in my hands, has been more rapid than the steel punch.

The method controls bleeding quite easily, and if the operator is careful this factor should be reduced to a minimum. There has been no reaction where the procedure has been a short one, as in resecting a median bar. However, with a prostatic resection, where the length of the working time is greatly increased, the patients quite often experience a very definite reaction, having chills with a rise in temperature to 103 degrees Fahrenheit, probably due to the stirring up or bringing about of some infectious renal process. A certain amount of this should be expected, as it is not possible to carry out a urethral procedure for a long period of time and not get some reaction. Some of the earlier patients appeared rather toxic, as if a prostatectomy had been done. In later cases this has been very much lessened by performing a Day trocar-Pezzer catheter operation for suprapubic drainage, as a matter of introducing additional factors of safety and satisfactory drainage. This procedure is a minor one and substituted in lieu of the usual cystotomy since it can be done through a small high suprapubic incision, under local anesthesia, several days prior to undertaking the transurethral prostatic resection. The cases necessitating longer periods of time for resection have been done very easily under nupercain (10 milligrams) spinal anesthesia, the duration of which may be from two to two and one-half hours.

The question arises, are these patients cured even though only a portion of the obstructing prostate has been removed. We know from our clinical experience with the type of pathology existing in the hypertrophied prostate that a prostate incompletely removed by prostatectomy almost certainly will result in recurrence; yet here is a method which is attempting to achieve a clinical cure with an incomplete removal of the prostate. Removing the obstructing tissue by electrosurgical resection will give such patients immediate relief by doing away with the urinary disturbances resulting in residual, congestion, edema, etc. But is this permanent? Davis has followed his cases over several years and has had only seven recurrences in over 250 cases. This looks almost too good to be true. Probably removal by this method may cause changes through the adenomatous hyperplasia that may lead to a standstill in the prostatic hypertrophy or possibly even some atrophy and shrinkage. If Davis' results are true, we will have to change some of our ideas concerning prostatic hypertrophy, at least clinically.

All in all, we are beginning on a new era in the treatment of vesical-neck obstructions. Preliminary reports from experienced operators have been very encouraging, but I fear too enthusiastic for the present amount of known data. This method of electroresection is not a panacea for all vesical-neck obstructions, but for the present can be said to include median bars, contractures, middle lobes, small prostatic hypertrophies, and prostatic carcinomas, the latter as a palliative measure. In larger hypertrophies, prostatectomy must still be resorted to. The method does carry certain risks and dangers, and those cases having large residual urines must be just as carefully prepared for this procedure as if a major surgical operation were to be undertaken. The fundamental principles of urologic preparation in patients with obstructions must never be forgotten. It is a method that requires skill in diagnosis and in endoscopic instrumentation, and should not be undertaken except by an individual trained in such. This method of electrosurgical treatment is here to stay, but not until we have acquired more skill and experience in its performance and careful consideration and observation in the follow-up and end-results over a satisfactory period of time, of at least several additional years, will we be able to give this method its proper indications and evaluation and assign to it its place in the treatment of vesical-neck obstructions.

INTRACAPSULAR AND INTERTROCHANTERIC FRACTURES OF THE FEMUR AND FRACTURES OF THE PELVIS: THEIR TREATMENT

By CARL P. JONES, M. D.

Grass Valley

Discussion by Trusten M. Hart, M.D., Los Angeles; E. W. Cleary, M.D., San Francisco; James T. Watkins, San Francisco.

INTRACAPSULAR, and to a less extent intertrochanteric fractures of the femur are accidents of middle and advanced life.

The prolonged period of confinement and immobilization incident to all methods of treatment, when imposed upon patients in the degenerative period of life, results in the highest death rate of all simple fractures and creates an economic burden unbearable by many.

Perfect anatomical and functional results are extremely rare; and these injuries are considered most serious by both laymen and physicians. On account of this alibi many patients with fracture of the hip do not receive the exacting and meticulous care and attention to which they are entitled.

METHODS ORDINARILY USED

The time-honored methods of treating these fractures may be listed as follows:

1. Traction and countertraction with elevation of the head of the bed and use of weights, ropes, and pulleys.
2. Thomas hip splint, with or without reduction.
3. Maxwell-Ruth combined longitudinal and lateral traction.
4. Whitman abduction with immobilization in a plaster of Paris spica.
5. Operative reduction with an attempt at mechanical fixation of the fragments and immobilization in plaster or splints.

Enthusiasts for any of the above mentioned methods, thoroughly understanding all of their underlying principles, and willing to give the exacting care and attention they variously demand, secure bony union in approximately 50 per cent of their cases. However, the average results throughout the country fall short of even this unsatisfactory percentage.

Various theories have been advanced to explain this frequent failure of bony union. From my limited experience, I believe that imperfect reduction plays the most important rôle in nonunion, and any method which gives the highest percentage of satisfactory reduction will give the best results.

Since the majority of fractures of the hip are attended by the general practitioner and a large percentage in the homes of patients, highly specialized apparatus necessary either for reduction or its maintenance is seldom available.

The ideal treatment of fractures would be to put the fragments into place without pain or discomfort to the patients, and there retain them

without any interference with bodily activity. Though unattainable, we constantly strive toward this ideal in the treatment of all fractures.

AUTHOR'S METHOD

I became impressed with the idea that one might use the uninjured leg as a fixed member from which to make traction upon and immobilize the injured member in the reduction of fractures of the hip.

With the assistance of a mechanical engineer many changes and improvements have been effected, and finally the traction splint hereafter described was developed.

The splint has been used by more than fifty physicians on approximately one hundred patients, and at the present time there are more than fifty of them in actual use.

I am unable at this time to make a definite statement of the percentage of bony union secured with the use of this new traction splint. At a later date I shall give a complete report of the first one hundred cases in which it has been used.

From my own experience, and from personal communications from physicians who have and are using it, I believe that bony union results in well over 75 per cent of the cases.

TECHNIQUE OF SPLINT APPLICATION

The traction splint and its method of application may be briefly described as follows:

The splint is entirely constructed of duro aluminum, and consists of two side arms adjustable to the casts placed on the lower extremities, and a barrel containing within it a central threaded screw, the rotation of which changes the longitudinal relation of the side arms.

Carefully padded plaster boots are first applied to both legs from below the knee to the base of the toes.

When the initial boots are properly set the splint is placed between the boots and the side arms are adjusted to the contour of the boot with the traction arm at the top of the barrel.

An assistant grasps both ankles, making firm traction on the legs, carefully aligning the legs with the pelvis and internally rotating both feet about thirty-five degrees.

The side arms are then fastened to the boots with substantial plaster bandages.

When plaster bandages have hardened, traction is applied by use of the screw in the central barrel.

The traction arm on the broken member is gradually pulled down to a point where the patient complains of a rather severe pain in the hip. The traction is backed up about one turn and the patient is free from pain.

The x-ray plates will indicate whether any changes in the amount of traction are necessary and be of service in watching the progress in healing from time to time.

The splint is removed in from seven to twelve weeks as determined from the x-ray evidence of callous formation.

CONCLUSIONS

From the experience of those who have used this traction splint I believe the following conclusions are justified:

1. Reduction of the fragments in intracapsular and intertrochanteric fractures of the femur by this method bring a nearer approach to normal anatomical relations than can be secured by any other method.

2. No anesthetic is necessary in the application of the splint or during the reduction, the patient suffering little or no pain.

3. The patient is afforded a hitherto unknown freedom of movement during the period of treatment. As no dressings are applied above the knees the patient may sit up in bed, be turned from side to side, or be transported long distances with great ease and comfort.

4. It can be successfully used by men of limited experience.

5. Hospitalization is not essentially necessary.

6. Marked stiffening of the knee does not follow its use.

7. Bony union and a weight bearing and a useful leg are more frequently secured than we have been accustomed to consider possible following fracture of the hip.

8. Danger of pneumonia and cardiac complications are reduced to a minimum.

9. The time required of physician, assistants, and nurses while fractures are being reduced and during period of treatment is materially reduced. Over three years ago the first splint was used on a woman eighty-four years of age. This was an intracapsular fracture of the neck of the femur. She has full range of motion in the hip and knee and no shortening of the leg. An x-ray picture taken recently shows the fractured hip in perfect condition and position.

Grass Valley, Nevada County.

DISCUSSION

TRUSTEN M. HART, M. D. (520 West Seventh Street, Los Angeles).—One cannot help but admire the beautiful mechanical splint of Doctor Jones's; also his courage and the amount of work that he has given to perfect this splint.

Every fracture of the neck of the femur presents a definite and difficult problem. For many years many surgeons have given much thought and time to the treatment of this fracture, but as yet no method has been universally accepted as a method beyond reproach.

Doctor Jones seemingly holds that the lack of anatomical reduction is probably the greatest cause for nonunion. To my mind, that is a moot question, for many patients with perfect reduction, as evidenced by careful x-rays after treatment by immobilization, traction and other methods still show nonunion.

Doctor Jones in one place states as follows: "Perfect anatomical and functional results are extremely rare; and these injuries are considered most serious by both laymen and physicians. On account of this alibi many patients with fracture of the hip do not receive the exacting and meticulous care and attention to which they are entitled." It seems to me that good functional results are not so rare as Doctor Jones indicates; and if such be the case, one would think that this would be a very good reason for the

patient to receive not only exact and meticulous care, but expert care also.

In another paragraph the doctor suggests imperfect reduction as playing the most important rôle in nonunion.

On our service at the Los Angeles County General Hospital the Smith Peterson pin was tested on a number of patients. This method necessitates an anesthetic for reduction and application, but the patient may be allowed any degree of motion in bed afterward that would be permissible with any other type of splint. Thus far, with this pin method the results have been very promising. To my mind, that method helps solve the problem that I believe is the cause for more nonunions than any other thing and that is, blood supply; and certainly these patients are very comfortable. At the General Hospital we have been unfortunate with the Doctor Jones splint or our method of application has been faulty, for our results have been exceedingly unsatisfactory. The Jones splints are at times applied by the residents on the orthopedic services, who are men of as much training and experience in this orthopedic work as the average general practitioner, and it would seem to me that if the residents are unable to apply this splint, probably the general practitioner might at times also have difficulty.

Nevertheless, I believe that Dr. Jones's splint is a very definite addition to our armamentarium for the treating of fractures of the neck of the femur. However, just as much skill, time, and care must be used with his splint as with any of the other accepted methods of treatment. In this work it is necessary to know the various methods of treating these fractures. Then one can select the procedure which seemingly best suits the particular case.



E. W. CLEARY, M. D. (490 Post Street, San Francisco).—I began to use the Jones splint as soon as I saw it and could get one. Since then, up to date, all my femur fractures have been intertrochanteric. Two are recovered. A woman of eighty-seven who had a badly comminuted intertrochanteric fracture has a firm union with no shortening or deformity. I think she would have died if we had put on a Whitman cast; traction would have been difficult and uncertain, and open reduction was out of the question.

Intracapsular fractures of the femoral neck should be even more efficiently reduced and held by this appliance than the intertrochanteric type. No method, not even the best operative reductions, has yielded any near approach to 100 per cent recovery in high subcapital fractures, so far as I know. A large percentage of such lesions occur to aged and feeble individuals. A method which accomplishes positive reduction and positive maintenance in the reduced position with a minimum degree of restraint and shackling of the patient is a boon alike to patient, doctor, and nurse. The Jones splint can do this.

In the hands of competent and painstaking surgeons it is very much worth while, but it must not be expected to do the impossible. While the splint is on I keep all my patients either on a fracture bed or a Bradford frame; otherwise, handling of the patient in cleansing the skin or using the bed pan may defeat the object of the treatment.



JAMES T. WATKINS, M. D. (909 Hyde Street, San Francisco).—I am familiar with Doctor Jones's appliance and can say without hesitation that it is exceedingly efficient in the treatment of certain fractures, particularly fractures of the pelvis with displacement of the fragments. Here I know of nothing that can compare with it.

Doctor Jones is quite right in his assertion that imperfect reduction plays the most important rôle in nonunions of the femur. In communities where a stereoscopic x-ray can be employed to obtain exact

information regarding the relations of the fragments after attempted reduction, I believe that there is no excuse for failing to get an accurate reduction.

The technique of Doctor Whitman's procedure should be very well known to everyone who proposes to treat these fractures. Indeed, there is no excuse for not knowing it. It ought not to be hard to remember the several steps: (1) Make traction until the legs are equally long. (2) Rotate the injured leg inward. (3) Maintain this position and abduct the good leg admaximum and then abduct the injured leg to the same extent. (4) Then slightly hyperextend the injured leg. (5) In the position so obtained apply plaster of paris from toes to axilla. Once the fragments are properly locked they stay locked.

A little over a year ago I attempted reduction of a fracture of the femur. The stereoscopic x-ray had shown it was not satisfactory, so I repeated the procedure—this time successfully—and shortly afterward sent her home to New York in a Pullman section, referring her to Doctor Whitman. His x-rays showed the relations of the fragments unchanged, and the cast was left intact. She assured me recently that her leg was now as good as it had ever been.

Whether Doctor Jones's appliance will supplant the Whitman method I cannot say. It can be said, however, that it presents certain distinct advantages since, as Doctor Jones points out, old and enfeebled persons, who do not take kindly to protracted periods of lying in bed, can be placed in a sitting position as soon as the Jones apparatus has been applied.

ROENTGEN DIAGNOSIS OF TRACHEO-BRONCHIAL AND PULMONARY TUBERCULOSIS—ITS VALUE*

By MERL L. PINDELL, M. D.
Los Angeles

DISCUSSION by Ray A. Carter, M. D., Los Angeles; Chesley Bush, M. D., Livermore; A. C. Siefert, M. D., Oakland.

IN this paper the early discovery of pulmonary tuberculosis and the significance of roentgen diagnosis will be chiefly stressed, and the methods of procedure in the Los Angeles County Health Department will be outlined.

The Department has started a ten-year program (two years of which have passed), cooperating with the Los Angeles County Tuberculosis and Health Association, the latter of which has charge of the sale of Christmas seals in the non-metropolitan areas of Los Angeles County. The program referred to is commonly spoken of as "the contact program," as many of the patients selected for examination are living in a family where there is a case of pulmonary tuberculosis. However, the majority of the children selected for examination are first given a Mantoux test.

When geographical area and population are considered, this is a very extensive program. Professor Ira Hiscock, of Yale University, estimated conservatively that there are 18,000 close contacts in the Health Department's territory. A program of this character demands a large personnel, especially an efficient nursing service, which is derived from seventy-six full-time nurses and many part-time nurses in the Los An-

* Read before the Radiology Section of the California Medical Association at the fifty-ninth annual session at Del Monte, April 28 to May 1, 1930.

geles County Health Department. The Tuberculosis Division consists of one chief physician, full time; three clinic physicians, full time, and twenty-one consulting physicians, as needed.

The highest mortality from tuberculosis in the state of California at the present time is in the age group of from fifteen to twenty-five years; so it is easy to understand why we are stressing the early recognition of this disease, especially in children.

Tuberculosis is still the most expensive disease of civilization, costing the United States alone over \$500,000,000 annually. Out of our population of 110,000,000 citizens, 9,000,000 are doomed to die of this disease, unless we do better in fighting it than we have in the past.

Statistics show that tuberculous people, who had come in contact with health propaganda, were in the earlier stages of the disease; and therefore had a better chance to get well than the people who were not so fortunate as to have become familiar with such health education.

PHYSICAL FINDINGS VS. X-RAY FINDINGS

The writer's viewpoint as to the value of x-ray in the diagnosis of pulmonary tuberculosis is in line with the outline in the "Diagnostic Standards" edited by the National Tuberculosis Association, from which I will quote:

"Radiological Findings.—Definite parenchymal changes are seen in nearly all instances of proven pulmonary tuberculosis. Absence of such changes demands other proof of the existence of the disease."

"Physical Findings.—Pulmonary tuberculosis may exist without the occurrence of demonstrable physical signs. Absence of abnormal physical signs does not mean, therefore, absence of pulmonary tuberculosis."

Some time ago I heard a physician, from one of our large insurance companies, analyze one thousand cases of pulmonary tuberculosis. His conclusions were that many of these patients had the disease when passed as sound by the medical examiners of the company. But what are the companies doing about it?

The insurance companies could save thousands of dollars and be of greater benefit to mankind by including x-ray of the chest in their medical examinations.

We are falling down on the early diagnosis of pulmonary tuberculosis. We are waiting for the patient to come to us with symptoms. At such a time as this, in the preponderance of cases, it is too late to effect a cure. Here, I wish to cite a case to emphasize the importance of examining contacts, and the folly of depending too much on clinical information.

A young high school girl, fifteen years of age, was examined because she was a contact to her brother. She was a well-nourished girl, with normal temperature and pulse. She played basketball without becoming fatigued. The examination by x-ray revealed a large cavity in each apex; and fairly dense, bilateral upper-lobe mottling. The physical examination revealed râles in both upper lobes, but missed the cavities. This girl died in less than a year. Her parents and the educational authorities could not be convinced that she was in a critical condition. I have seen many physicians with the same turn of mind, so we should not condemn the parents or the teachers too severely.

Inasmuch as there are many times no characteristic symptoms nor signs of the disease, we must rely principally upon the history of household exposure to open cases of tuberculosis. In the County Health Department work the sensitiveness of the tuberculin test in selecting children for examination is taken into full account.

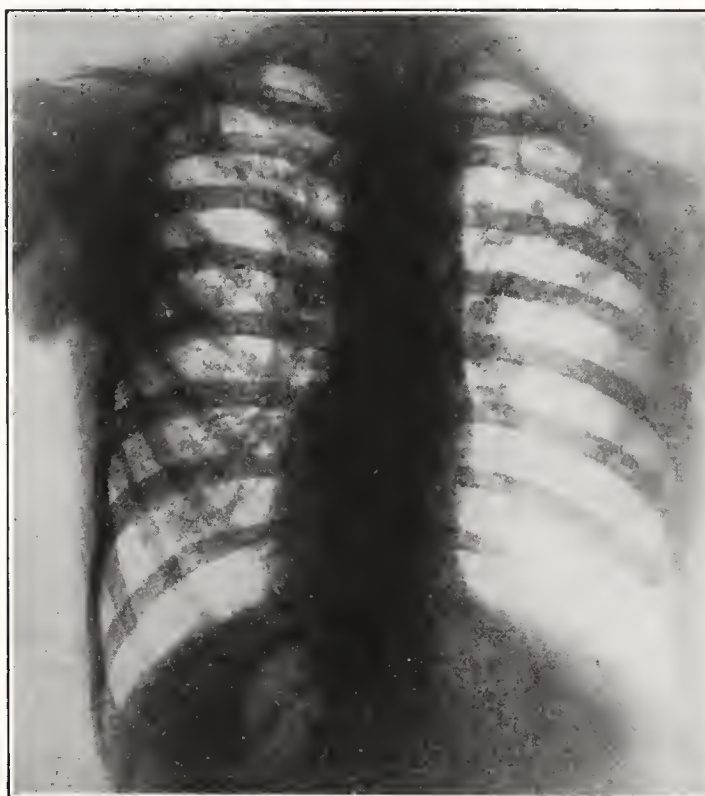


Fig. 1.—High school girl, age 15 years. Well nourished girl with normal temperature, who took strenuous exercise without fatigue. Contact to brother. Film revealed large cavity in each apex.



Fig. 2.—Female patient; age, eight. Positive Mantoux test. Close contact. No physical signs nor clinical symptoms.

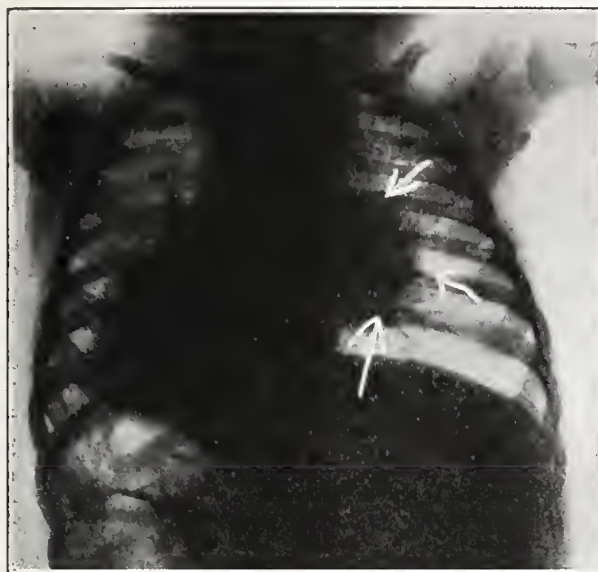


Fig. 3.—Male patient; age, eight months. Father is a hemorrhage case, and is now in the hospital. Film reveals Ranke's complex (early pulmonary lesion with enlarged secondary tracheobronchial lymph nodes). After one year's rest, the abscess has entirely disappeared and the tracheobronchial involvement is becoming calcified.

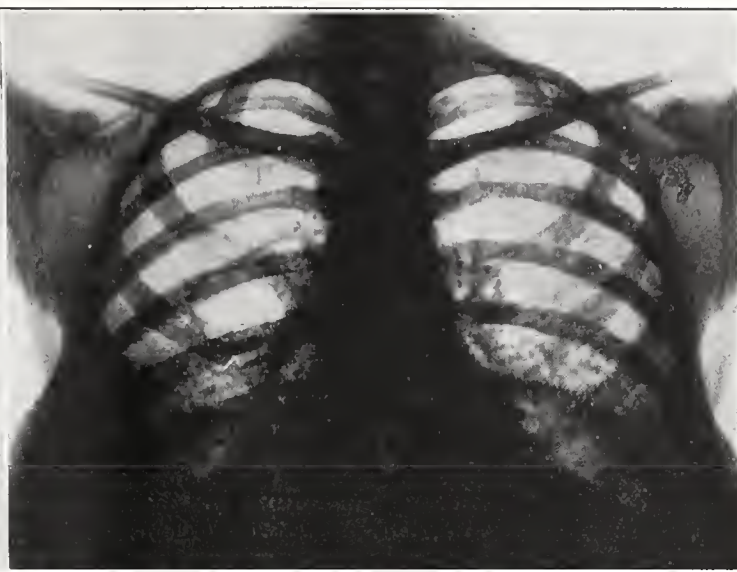


Fig. 4.—Female patient; age, seventeen. Very positive Mantoux. Physical examination revealed a few crepitant râles over the left base anteriorly, and a few coarse râles over the right base, following cough. No signs of cavitation were present.

EXAMINATION OF HIGH SCHOOL STUDENTS

About a year ago, by x-ray and physical examination, 197 high school children were examined. Of these 113 were girls and eighty-four were boys. Only 30 per cent were contacts. Twenty-six were 15 per cent or more underweight, and of these 77 per cent were girls. Two cases of pulmonary tuberculosis were found. One was far advanced and the other minimal. The minimal case had no clinical symptoms nor physical signs, and was revealed by x-ray only. Eleven cases of tracheobronchial tuberculosis were found. Five patients of this group were boys and six were girls. Tuberculosis diagnoses amounted to thirteen or 6.6 per cent of the total number examined.

EXAMINATION OF SUMMER HEALTH SCHOOL STUDENTS

X-rays were taken of 304 children in the summer health schools during the summer of 1929. Of these 166 were reported to be contacts; the rest were 15 per cent or more underweight. There were twenty-one cases of tracheobronchial tuberculosis, and three cases of minimal pulmonary tuberculosis. Tuberculosis diagnosis constituted 7.6 per cent.

DIAGNOSIS OF TRACHEOBRONCHIAL TUBERCULOSIS

The clinical signs of tracheobronchial tuberculosis are confusing, to say the least. In the writer's opinion, the overwhelming majority of these patients do not have any clinical symptoms or physical signs; and underweight or malnutrition as an indication of tuberculous infection or latent disease is not to be depended upon. If many patients, who have cavities in their lungs, are up to normal in weight, and have no clinical symptoms, what can we expect a few localized or calcified glands to reveal? Of course, massive

infection and extreme enlargement of these glands do cause symptoms and produce physical signs.

Underweight and clinical symptoms are common to many children who do not have tuberculosis. A child may be thin because he is very active, or active because he is thin. I know of a woman who gained ten pounds, while a definite and quite extensive, nodular, basal infiltration was developing in her good lung, certainly fooling a good clinician. It is the writer's belief that the x-ray is the only reliable method in the diagnosis of tracheobronchial tuberculosis, but it surely exists without demonstrable calcifications. Extensive research has demonstrated that these calcifications represent definite tuberculous infection, and in most of our cases there has been a contact history and a positive tuberculin test.

When the contact program work was first started, the writer was very enthusiastic about it and trained his technicians to place the patient so as to show the bifurcation of the trachea, as this is a favorite location for calcifications. The exposure time was increased in order to obtain good contrast and we demonstrated some beautiful calcifications that were not shown in the straight position. True calcifications must not be mistaken for blood vessels axially radiated. This mistake is being made by a great many physicians and of course denotes inexperience. Now, of what significance are these findings? The writer is not yet convinced of their great importance in causing pulmonary tuberculosis, and, of course, we rarely hear of a patient dying of tracheobronchial tuberculosis. The writer still clings to the old viewpoint that calcifications anywhere in a tuberculous patient are an indication of a healing process. If this be true, might these calcifications in the intrathoracic lymph nodes without other evidence of the disease be an asset instead of a liability to the individual who has them?

When such patients as these are taken out of their infective environment, very few ever get pulmonary disease. It is, however, important to diagnose these calcifications, if for no other reason than to check the father and mother of such a child for the possible source of infection.

The uncalcified and massive enlargement of these glands is more serious. They are shown on the roentgenogram by irregular densities projecting from the upper mediastinum or hilum. (However, Fig. 3 also shows a pulmonary lesion.) They must not be mistaken for movement of the heart and shadow of blood vessels. The writer has changed his mind about the non-tuberculous enlargement of these glands, and now considers all enlarged intrathoracic lymph nodes in a child as tuberculous. All these early lesions diagnosed in childhood should show positive tuberculin reaction.

EARLY PULMONARY LESIONS

The only time that tuberculosis has a marked tendency to heal is in the earliest stages, when it is localized; therefore, this is the time at which it should be diagnosed, and the x-ray ranks supreme in showing these early lesions. There is no secret in the accuracy with which the x-ray depicts dense tuberculous lesions, but there is probably an art in being able to distinguish slight, fine, tuberculous mottling in the lung from the normal lung markings. Roughly speaking, any confluent densities or discrete, fine mottling; or coarse nodular infiltration in the upper half of the lungs of an adult should be considered tuberculous until proven otherwise. These markings must be entirely distinct from the linear markings of the lungs. Most of the lesions located in the lower half of the lungs should be considered non-tuberculous until proven otherwise. But many times characteristic nodular densities are observed in the bases and, of course, represent tuberculosis.

Definite annular shadows in the upper half of the lungs should be considered tuberculous cavities until proven otherwise. If these annular shadows are located in the lower half of the lungs and show a distinct wall outline, they also should be considered tuberculous cavities until proven otherwise.

CHILDHOOD TYPE OF TUBERCULOSIS

Pulmonary tuberculosis in childhood can occur anywhere in the lungs, and is caused by a primary infection and the tracheobronchial glands are always affected; while the adult type in childhood is secondary or the result of reinfection, and the tracheobronchial lymph nodes are seldom involved. The former, which may be depicted at times by a massive allergic reaction, has a better outlook than the latter, and heals more by resolution than by fibrous transformation. Small perifocal lesions have a good prognosis.

Miliary tuberculosis occurs chiefly in infants and is depicted on the roentgenogram as universal, fine, speckled mottling and has an unfavorable prognosis. However, if such patients do not develop meningitis many get well.

We have been criticized for being too dogmatic in reporting the stages of tuberculosis. For instance: minimal, moderately advanced, far advanced. Who could describe with more accuracy the anatomical location and distribution of tuberculous lesions, the size and location of cavities, better than the roentgenologist? Of course, we do not attempt to classify them as to "A," "B," and "C," as these are based entirely on clinical symptoms and physical signs, which I do not think are satisfactory. A better classification is based on whether we are dealing with an exudative or productive lesion.

The writer is still to be convinced that physical examination and clinical symptoms can tell whether a patient's disease is arrested or not. They may say the disease is arrested, but that does not make it so. The writer is skeptical enough to believe that so long as x-ray depicts densities that are not completely fibrosed, that such a patient still has tuberculosis. It may be latent, but it is dangerous.

A report from the United States Veterans' Bureau for the year of 1927 stated that of the patients discharged with a diagnosis of arrested or apparently arrested tuberculosis 75 per cent gave evidence of activity within one year after discharge. Were the patients arrested when discharged?

BELIEFS CONCERNING TUBERCULOSIS

The ancient conception of tuberculosis was that a patient must be extremely emaciated to have consumption.

The medieval conception of tuberculosis was that the tubercle bacilli must be present in the sputum, and that there must be clinical symptoms and physical signs of the disease.

The modern conception of tuberculosis stresses the importance of early diagnosis, at which time many patients have no clinical symptoms nor physical signs, and are diagnosed principally by Roentgen examination.

The writer maintains that any person of any age (positive Mantoux in children) who shows by x-ray examination a fairly characteristic and persistent lung infiltration that is not encapsulated in the apex, not completely fibrosed nor resolved, should be considered as having pulmonary tuberculosis, and as such is dangerous and should be treated. The common acceptance of "activity" as it relates to pulmonary tuberculosis is many times irrelevant; so mankind might be more benefited if the word should become obsolete.

Basal lesions, we all know, are treacherous. They may exist for years without noticeable impairment of health. Eventually, however, a great majority of these, if unrecognized and untreated, will develop into manifest disease. For two years the writer has had a nurse under observation who had no clinical symptoms nor physical signs, but who did have a small, definite basal density which suddenly flared up with many clinical symptoms, positive sputum, et cetera. An x-ray examination revealed quite an extension

of the process in the base with evidence of breaking down of the lung. To repeat what has been said before, densities in the lung that are shown by x-ray should be treated regardless of the absence of clinical symptoms or râles.

Knowing that criticism must be constructive to merit consideration, he would make his suggestions accordingly. It requires a great deal of experience to interpret x-ray films properly. The greatest error the writer made in the beginning, and which he knows has been made by others, is that of reading too much in the film and not being able to distinguish between the films of a healthy chest and that of a diseased one.

It has just been lately that he has been able to distinguish, with a fair degree of accuracy, between a normal and abnormal lung radiograph. This art, if you wish to call it that, requires seeing the films of thousands of normal chests of all ages, and thousands of abnormal chests of all ages, with autopsy checks. Clinicians are not to be blamed for doubting or scoffing at some of the reports they receive. The writer has been guilty many times of writing too much in his x-ray reports. Let us be more brief in our reporting. The clinicians are not interested in minute technical descriptions. An elaborate report might interest other radiologists, but how many of our reports are seen by them? The clinician merely wishes an opinion. He does not care to know if the hilum is one-half millimeter larger than you think it should be; or that a certain linear marking comes within a millimeter of the summit of the apex; or that the mediastinum is one-half millimeter enlarged; or that the right dome of the diaphragm is irregular. Such descriptions as these should be eliminated.

Densities in the lung, or encroaching on the lung, of course, should be fully described, as to location, distribution, size, character, etc. If dealing with tuberculous lesions we should state whether caseation or fibrosis is predominating; size, character and location of cavities and whether, in your opinion, pneumothorax would be advisable. A note of warning about interpreting lesions as fibrous. Purely fibrous lesions, in the writer's opinion, are uncommon.

CONCLUSIONS

1. The feasibility of a health department undertaking the education of the public about tuberculosis and starting a campaign for its early recognition, cannot, in the writer's estimation, be questioned.
2. Early pulmonary tuberculosis and latent pulmonary tuberculosis, the diagnosis of which is so essential and which is so many times overlooked on physical examination can practically always be diagnosed by roentgen examination.
3. More attention should be paid to the anatomical lesions, that is, definite densities shown by x-ray; and less attention should be paid to temperature, pulse and râles.
4. All children that are contacts or have a positive tuberculin reaction should be x-rayed.

5. From a public health standpoint, x-ray plays a vital part in our campaign against tuberculosis.

6. The time has now arrived for the public to demand x-ray examinations of the chest when applying for periodic medical examinations.

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DISCUSSION

RAY A. CARTER, M. D. (1100 Mission Road, Los Angeles).—A clearer conception of the pathology and pathogenesis of pulmonary tuberculosis has helped to clarify roentgen diagnosis, particularly in children. It has also helped to focus attention upon the rôle played by contact infection in childhood. This infection must be recognized and prevented if tuberculosis is to be successfully combated. It is encouraging that elaborate public health programs, like this outlined by Doctor Pindell, are under way.

The roentgen ray examination is a major factor in such a campaign. It is true that the film often demonstrates anatomic symptoms, especially in latent cases. Occasionally, rapidly progressive lesions are shown with little evidence aside from the film. Therefore, routine films will be indispensable in a thorough campaign of tuberculosis prevention and should be made of all contact and tuberculin positive children.

The positive roentgen evidence of tuberculosis is strong. Disguised by discrepancies of terminology, one can see fair agreement as to fundamental pathology and roentgen appearances it will produce. There are differences of opinion as to prognosis, severity of involvement and pathologic detail. These can usually be resolved in light of other evidence.

Concerning the negative use of the film, I cannot yet feel so sure. Public surveys mean a tremendous volume of work, usually overtaxing any capacity which can be developed to meet it. This leads to an imperative demand, expressed or implied, for some routine agency, not only to single out cases for special attention but also to eliminate others.

Will properly taken negative films eliminate the disease in a contact or tuberculin positive child? Doctor Pindell quotes from the National Tuberculosis Association that "definite parenchymal changes are seen in nearly all instances of proven tuberculosis." McPhedran said of roentgen examination that it would "almost without exception reveal any lesion that is clinically significant." In the same article he established that uncalcified glands of tracheobronchial tuberculosis are not recognizable unless large and therefore will not be seen in a majority of cases. He also demonstrated that parenchymal lesions may be missed on the usual views.

May we assume that these lesions are not clinically significant in a prevention program? It seems reasonable that there should as yet be some conservatism in the use of the film to eliminate tuberculosis.

I share Doctor Pindell's distrust of apparently arrested or inactive lesions. "Activity" is a treacherous word. The roentgenologist, if he mentions it, usually thinks of pathologic activity, the clinician is prone to construe his report as indicating clinical activity and naturally resents an intrusion. It is safer to report the pathology as accurately as we may from the film, letting this carry its own inference. Lawrason Brown has drawn clearly the distinction between clinical and pathologic activity.

The oblique views, to demonstrate calcified tracheobronchial glands, as stressed by Doctor Pindell, are necessary to thorough examination of the child.

Doctor Pindell is to be congratulated upon his paper and upon his opportunity to play a vital part in a campaign which promises much in the control of tuberculosis.



CHESLEY BUSH, M. D. (Livermore).—Doctor Pindell has had a great deal of experience with tuberculosis and has made a careful study of his work. His ideas

are most sound. I have seen some of his latest x-ray technique on chests of children, and the films are as perfect as can be obtained today.

He stresses the importance of x-ray studies in diagnosis and treatment. I would like to add my commendation of this. Only today I have seen a young university student who has a slowly advancing lung lesion as seen by the serial x-ray, without any physical signs or clinical symptoms of being ill. In fact she appears to be physically better today than six months ago. And yet we must conclude that she has an active tuberculosis requiring a complete overturning of her life for the next year or more. One dealing with tuberculosis nowadays must have as much expertness in interpreting films as used to be required in listening to chests, just as in the future the tuberculosis man will be doing specialized surgery.

This importance of x-ray studies is raising a large economic problem. Substitution of routine screen examinations by some industrial and insurance companies does not answer the problem completely, although it decreases the percentage of error. The screen does pick out proliferative lesions fairly well—but it does not show early exudative lesions which are the most menacing to the health and life of the patient. We are continually seeing applicants for life insurance who break down with tuberculosis a few months after receiving a policy and on whom the companies are lavishing disability payments that might have been saved to them by an x-ray film at the original examination. Routine examinations of tuberculous positive children and health examinations of adults are not complete without an x-ray and the average person cannot afford to pay the extra fee. Public health authorities will have to meet this situation. The general public is beginning to realize the importance of x-ray and it is not now uncommon to have a patient request an x-ray and feel that a chest examination is incomplete without one. The suggestion has been made that a governmental laboratory furnish x-rays as is now done with the Wassermann reaction. This is only another of the economic complications of modern medicine.

The extensive work being done in the "contact plan" of Los Angeles County is a lesson to other tuberculosis associations. The high percentage of tuberculosis found in the groups quoted by Doctor Pindell is astonishing inasmuch as the results are higher than quoted usually in similar groups in this country. It is also interesting to note that the tuberculosis found among the children in the health camps is no higher than that found amidst the school population groups, showing the fallacy of picking out children for these camps by the usual methods.

However we must remember that a negative film does not rule out tracheobronchial tuberculosis in a tuberculin positive child. It simply rules out the presence of parenchymal lesions. It is of great importance to rule out these lesions, though, because it is in this type of child that we recover the tubercle bacillus and they may be dangerous to other children as well as needing extra care themselves. Doctor Seifert is right in saying that in adolescents and adults a negative film means a great deal. Rarely we find a positive sputum in an adult with a negative film, but is so rare that it is to us a curiosity.

Doctor Pindell suggests the question "Is a child better off for a mild degree of tracheobronchial infection?" The answer lies at the root of all our tuberculosis work and we are awaiting the decision.

✽

A. C. SIEFERT, M. D. (Merritt Hospital, Oakland).—It is my desire to express to Doctor Pindell my admiration for his really masterful exposition of the problems of the diagnosis of pulmonary tuberculosis as they concern the roentgenologist. If more roentgenologists would speak with such competence, experience, logical clarity, and best of all, courage of conviction, one would hear less often the complaint

that roentgenology is not treated with the proper respect by the clinical specialties.

Concerning the subject matter of Doctor Pindell's paper, I so thoroughly agree with him that there is no necessity to repeat, on my part, what he has already said, and better said than I could. Only two or three points, however, I would discuss:

As regards the value of the negative roentgen examination in children I would say that it does not prove positively that there is no tuberculous infection, especially of the tracheobronchial lymph glands. In adolescents and young adults, on the other hand, I think, the negative roentgenogram is of considerable diagnostic value and would set my face absolutely against labeling individuals with negative roentgen findings and equivocal clinical symptoms and physical findings, as "tuberculous." These patients should be kept under observation, and special diligence be used to ferret out focal infection and to remove such foci. Frequently, on such removal, clinical symptoms will disappear. If not, careful observation and frequent reexamination will produce the evidence of tuberculosis.

Concerning the use of the word "activity" in pulmonary tuberculosis I cannot share the author's dislike of it, nor admit the clinician's contention that the roentgenologist has no right to use it. Pulmonary tuberculosis may be said to be in a state of activity as long as the interaction between the tubercle bacillus and the infected organism is in progress in either direction. The manifestation of activity is expressed in terms of pathologic physiology and in terms of pathologic anatomy. The anatomical changes are of an unstable character, *i. e.*, they may go on to complete fibrosis and calcification in one direction, or they may go on to the extremes of tissue destruction in the other direction. It is quite conceivable, as Doctor Pindell has shown, that these anatomical changes of an unstable character may be demonstrated and their instability recognized by the roentgenologist, while the accompanying pathologic physiologic processes may be too slight to be appreciable by the ordinary methods of clinical examination. Perhaps, in the future, reliable immunologic and biochemical tests will be developed to make such "symptoms" manifest. At any rate, to quibble over "pathologic" and "clinical" activity is not to the patient's advantage. If the roentgenologist can, as Doctor Pindell contends, demonstrate and recognize so-called "pathologic activity," it becomes, to my mind, the clinician's duty to utilize this evidence in the interest of his patient even in the absence of clinically demonstrable symptoms. Who of us has not seen clinically arrested or latent cases of tuberculosis, or whatever expression be used, flare up with terrifying suddenness and go on to a fatal conclusion.

The final paragraph of Doctor Pindell's paper concerning the form of the roentgenologist's report to be rendered to the clinician meets strongly with my approval. Let us make our description, whenever possible, in terms of pathologic anatomy, not in fanciful comparisons based upon meteorology, dendrology, etc., which certainly do not add to the clarity of the clinician's conception of the pathology present, he being already hard put to properly interpret various râles, impaired resonances, etc. At the end of the roentgenologist's description should be expressed a clear-cut diagnostic opinion, not the usual hedging. The clinician should remember that this is an opinion and not accept it as a statement of absolute fact, for "errare humanum est." Let the clinician remember that the proverb applies to him, too, and not resent his colleague's expression of opinion but utilize it to the patient's advantage.

✽

DOCTOR PINDELL (Closing).—Concerning the negative reports of films, the writer feels that it is one of the most important parts of the campaign. Seriously considering the economic factor, and at the same time realizing that the roentgen examinations are not

infallible, the writer still believes that there are not nearly enough x-ray examinations being made. When routine x-ray examinations are not made, it is surprising how many patients are diagnosed as tuberculous and even sent to a sanitarium without the disease.

Referring to Doctor Carter's question of whether or not tracheobronchial tuberculous lesions are of any great significance in a preventive program, the writer does not consider these lesions a major problem as tracheobronchial tuberculosis is not a contagious disease, and the patients who have it seldom die. What he does consider the all-important part is that more stress must be laid on the recognition of tuberculosis in the adult, for he is the one that infects the child. Theoretically speaking, if we were to isolate all adults who have tuberculosis, we would not have tuberculosis in children. Of course we must diagnose the disease early in children and adults in order to save their lives.

The author agrees with Doctor Bush that films should be used instead of screens, or fluoroscopic examinations. The high percentage of tuberculosis that we found might be explained by our careful mode of selecting cases for examination, and the fact that there is a high percentage of Mexicans in our population.

Concerning the use of the word "activity," Doctor Siefert has stressed what the author had in mind, that if we wait until clinical symptoms manifest themselves, the patient many times will be in a dangerous condition. While, with pathologic activity, the disease is usually localized or in its early stages.

THE THERAPEUTIC VALUE OF THE HYPEREXIA BATH

By ARTHUR N. DONALDSON, M. D.
Long Beach

DISCUSSION by Merrill W. Hollingsworth, M. D., Santa Ana; Henry Mehrrens, M. D., and P. S. Pouppirt, M. D., Stanford University Hospital, San Francisco.

EVERY important contribution to the literature on the physiology of fever for the past thirty years offers the conclusion that temperature elevation renders a distinct defensive service to the body. It is the physician's experience that usually the patient with the highest temperature is the sickest. Hewlett¹ tells us, however, that this is not an indication that the high temperature is itself an unfavorable form of reaction, but that the disturbing factor is the severity of the infection. In other words, the degeneration of internal organs in the course of febrile diseases is due to the infection and not to the high temperature.

COMMENTS ON THE LITERATURE

MacCallum² of Johns Hopkins may be quoted as follows: "The febrile process is a reaction beneficial to the organism and, doubtless, intimately associated with the development of protective substances." MacCallum's observation seems to be substantiated by the work of Rolly and Meltzer,³ who, led by their theory of the functional value of fever, found that the overheating of the body increased the formation of agglutinins, bacteriolysins, and antitoxins. In another very interesting piece of work conducted by these German investigators, they seem to have fully proved their claim that fever is a defensive function. Two groups of animals were selected and

to each was given daily, by subcutaneous route, from one-fourth to one-half of the fatal dose of either staphylococci, pneumococci, or *Bacillus coli communis*. One group was daily heated up to 104 degrees Fahrenheit and held at that temperature for a given period of time. Results: the unheated group all died. The heated group all lived longer than the control, and one-half of them survived.

Hewlett¹ reports an experiment that parallels that of Rolly and Meltzer in results. A hyperthermia was produced in animals through the use of the steam cabinet, or by puncture of the heat centers at the base of the brain, or by the injection of some aseptic pyrogenic material. It was determined that erysipelas and infections from staphylococci, pneumococci, and the diphtheria bacilli ran a shorter and a milder course.

Hewlett also reports that the body temperature of rabbits has been kept at 105.8 degrees Fahrenheit, and over, for weeks at a time without serious damage to the tissues. An interesting sidelight on this evidence of the harmlessness of hyperthermia is the observation by Ott⁴ and others that tissue protection in the presence of elevated temperature depends upon an abundant supply of non-nitrogenous energy-producing food. For every increase of one degree in the temperature of the body, heat production increases six per cent. This is supposed to be due to the specific dynamic action of amino-acids. Yet the actual protein destruction in the presence of hyperthermia alone is very small, provided, of course, that nutrition has been properly maintained.

Hewlett¹ quotes Winternitz to the effect that in a hot bath the absorption of oxygen and the excretion of carbon dioxide is far in excess of that observed in an infectious fever, and that the coefficient approached closely to that observed in strenuous muscular exercise. We are reminded by these facts that a fever should not be starved, and that hyperthermia, if used therapeutically, will prove less exhausting if sufficient energy food has been provided to prevent an attack on the body proteins.

CLINICAL OBSERVATIONS NOTED IN THE LITERATURE

One of the oldest of therapeutic procedures is the hot bath. We have recently learned, however, that if we make the bath hotter and keep the patient in longer, the bath will prove of far greater therapeutic value than our previous experience has indicated. Schamberg,⁵ Frazier,⁶ Hollingsworth,⁷ Brown,⁸ and Mehrrens⁹ have all contributed to the literature within the past four years and, with one exception, report results that are so convincing that we are compelled to recognize the hyperpyrexia bath as a measure of widening therapeutic value. The one exception is Hollingsworth of White Memorial Hospital, and his technique is so obviously at fault that his conclusions are worthless.

Schamberg⁵ and Frazier⁶ report favorably on the treatment of experimental syphilis in rabbits by the use of baths at 113 degrees Fahrenheit.

Brown,⁸ working with human subjects, reports rapid improvement of gout and fibrositis with baths 104 to 108 degrees Fahrenheit.

Mehrtens⁹ has evidently given this procedure the greatest amount of study, and his reports indicate an unbiased effort to obtain the facts. He states that pain from disturbances in muscles, nerves, and joints proved especially amenable to treatment. He has treated encephalitis and Parkinson's syndrome following encephalitis, as well as combined sclerosis, with cheering results. He reports improvement in paresis and tabes, with favorable serological findings following courses. The baths were especially effective in controlling lightning pains and gastric crises. Mehrtens required a body temperature of 104 to 107 degrees Fahrenheit. He maintains this hyperthermia for from forty-five to sixty minutes, and sometimes by wrapping the patient in blankets, is continued. The frequency of the bath depends altogether upon the vitality of the patient: some daily, others once a week. A series usually is constituted of fourteen baths.

He found that a patient would lose between three and five pounds with each bath, but that this would be gained back within twenty-four hours. The appetite was usually improved by the treatment. Both systolic and diastolic blood pressure showed a substantial drop. Hemoglobin and red cell count, when influenced at all, showed a uniform increase.

AUTHOR'S OBSERVATIONS

Our interest in this subject began about a year ago, when Mehrtens reported on the treatment of paralysis agitans by this method. We happened to have three cases under the usual unsatisfactory program at that time, and thought it would be worth while to grasp any possibility. Two were treated, one taking a course of twenty baths, and the other ten. Both were of the arteriosclerotic type, a type recognized as the most unresponsive, and both were very materially benefited. A period of six months has elapsed now, and one of these patients, a man in his seventies, has retained much of the benefits derived. We have lost track of the other man. The third, untreated, has made the usual progress, downward.

In the past six months we have used the hyperpyrexia bath in chronic Neisserian infections, prostatitis, arthritis, acute colds, nephritis, neurasthenia, and tabes. We have observed clinical improvement in all. Patients with chronic arthritis, whom we have treated for a year and a half by every other theory and system but to no avail, have responded to the hot bath. We are just now treating a chronic Neisserian infection that has resisted all stock efforts, and is now responding after four baths.

In order to learn something of the effect of the bath on the body chemistry, we checked the carbon dioxid combining power and the non-protein nitrogen of the blood, and the p_H of the urine, on four different patients before and after the bath. The figures are as given in Table 1.

TABLE 1.—Effect of Baths on Body Chemistry

Patient		N. P. N.	Vol. per cent CO ₂	p _H of Urine
No. 1	Before bath	29.1	51.9	5.6
	After bath	30.6	53.9	6.
No. 2	Before bath	31.6	51.1	6.
	After bath	36.15	48.23	6.
No. 3	Before bath	23.7	50.63	6.2
	After bath	29.7	46.33	6.
No. 4	Before bath	27.4	51.43	5.2
	After bath	28.6	50.41	6.

The above is a small group, too small to offer as material for conclusive evidence, but it is at least suggestive that the alkaline tide is not seriously affected. It is interesting to note that in patient No. 1 the carbon dioxid combining power was actually increased. The p_H of the urine was markedly changed for the better in patients Nos. 1 and 4, the other two remaining stationary. Inasmuch as the protective response of the blood is influenced by the reaction of tissue fluids, these findings are interesting, for they indicate a favorable medium for the building up of a defense. The nonprotein nitrogen was raised in each instance, but not sufficiently to indicate any major tissue disintegration. No. 1 had the bath within an hour after a good meal. There was very little increase, indicating a protein saving by reason of available energy food. The other two had baths four to six hours after eating.

The blood count was checked in each case, and the findings in hemoglobin and red cell count paralleled Mehrtens', *i. e.*, if influenced at all, it showed an increase. We have found no record of the leukocyte and polynuclear count in the literature and so present it.

This certainly indicates a favorable reaction and substantiates the claim of Rolly and Meltzer,³ that the defensive elements of the blood are mobilized.

Our technique calls for the gradual rise of body temperature (recorded by mouth) to 104 or 105 degrees Fahrenheit, according to the response of the patient, and the maintenance of this point for forty-five to sixty minutes. The temperature of the bath is then gradually reduced to the recovery of normal. The patient is then put on a cot, comfortably covered, and allowed to rest for an hour. We repeat the bath from one to three times a week, according to the patient's vitality and response.

TABLE 2.—Effect of Baths on Leukocytes and Polynuclears

Patient		Total Whites	Per cent Polynuclears
No. 1	Before bath	6,000	67
	After bath	7,400	77
No. 2	Before bath	8,000	52
	After bath	8,400	70
No. 3	Before bath	7,000	61
	After bath	9,600	78
No. 4	Before bath	4,000	50
	After bath	5,000	60

COMMENT

We have long used foreign proteins for the anaphylactic reaction obtained. When injected they would cause a disintegration of other proteins in the body, and certain products of this change would act directly upon the heat centers. The beneficial effects, if any, are due to the fever resulting from an unbalancing of the heat regulating mechanism.

Nonspecific vaccines, and inoculation of luetics with malaria and other fever-producing organisms, draws value from the same fact—temperature elevation. In our opinion these are poor substitutes for the hyperpyrexia bath. The bath means more work for the physician and his nurses, but it means less discomfort and suffering to the patient, and the results are eminently more satisfactory to everybody concerned.

The bath is well tolerated by the aged, arteriosclerotic, the frail anemic. The greatest difficulty is with a nervous woman, who would probably be a whirlwind of despair anywhere or any time. We had a prizefighter who would become a bit groggy as the temperature elevated, and his pet diversion was to attempt an uppercut on the technician. We have been compelled to shorten the time occasionally for the first time because of the temperament and fear, but, in the main, the difficulties in handling the patient's idiosyncrasies are negligible.

The bath seems to act as a general rejuvenating agent. After the immediate period of exhaustion, a quick recovery is the rule; the appetite is stimulated and a subjective sense of improvement experienced. Sajous¹⁰ claims that heat is a general endocrine stimulant, and that the hyperthermia causes the hormones to stir up the defensive mechanism against toxemia and infection. Sajous' is an interesting theory, and some day we may have the evidence whether or no the endocrines offer the *modus operandi* for the results we behold.

CONCLUSIONS

1. The hyperpyrexia bath is a therapeutic procedure of distinct importance in the treatment of a wide range of acute and chronic diseases.

2. To be effective the mouth temperature of the patient while in the bath should range between 104 to 105 degrees Fahrenheit, and should be maintained for from forty-five to sixty minutes.

3. A course consists of ten to twenty baths, given three times a week, or less frequently, according to the condition of the patient and his reaction to the treatment.

4. The bath should displace foreign protein and nonspecific vaccine therapy for the reason that it is more rational and far more certain of producing the physiological response sought for by treatment.

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DISCUSSION

MERRILL W. HOLLINGSWORTH, M. D. (613 First National Bank Building, Santa Ana).—This fascinating idea of killing every spirochaete *in situ* in the body at one blow by some sort of heat has led to an enormous amount of literature. A recent number of the *Urological and Cutaneous Review* shows a bibliography of eighty-one different citations on heat therapy in syphilis alone.

Hewlett's observation on keeping rabbits at 105.8 degrees Fahrenheit without tissue damage loses significance when one remembers the normal temperature of the rabbit ranges from 103.2 to 104.4 and that 105.8 degrees Fahrenheit in the rabbit compares to 100 degrees Fahrenheit in man. Schamberg's first report did look somewhat favorable; a subsequent report on application of the hot bath to human syphilis was not enthusiastic; a personal letter to me stated he was withholding judgment entirely, and he later gave up this line of investigation altogether. Frazier admittedly used a very small series of animals, only six; and his own words are, "These results are not in complete accord with those of Schamberg and Rule." "Body temperatures varying from 106.2 to 110.6 F. (rectal) . . . resulted in definite inhibition of the clinical progress of the disease in three animals . . . and in complete suppression . . . in one animal." But . . . "elevations of body temperature within the range of those obtainable with safety in man, . . . 103.5 to 106.7 F., . . . were without significant influence on the clinical course of a syphilitic infection . . . in six animals . . . there was no demonstrable difference between the clinical course of the disease as observed in the test animals and that in the untreated animals." Brown's work was apparently on conditions other than syphilis, and Mehrtens reported beneficial results on such things as body aches and pains—the family hot-water bottle is still in use—but not much, if any, curative action on syphilis itself.

I was interested in investigating the effect of the hot bath on syphilis in man. As I am not a physical therapist, I consulted with members of the physical therapy department of the White Memorial Hospital about carrying out such an investigation. This institution has a personnel trained for years in physical therapy, and apparently has unlimited equipment for this work. I selected forty-two patients from those coming to the syphilis clinic to turn over to the physical therapy department. The personnel of the department was enthusiastic, as they had always "believed physical therapy would some day play a large rôle in the treatment or cure of syphilis." We had no precedent to start with, no rules to follow but the dictates of our own judgment, regarding the safe limit in either heat or duration of the bath. It was difficult to get a reliable sublingual temperature because the pa-

tients would have the greatest difficulty in keeping the mouth closed during the bath. The highest sublingual temperature actually recorded was only 105.4 degrees Fahrenheit; but the highest water temperature was 113 degrees Fahrenheit. The patients were given all we felt they could tolerate. All the work was supervised and carried out by experienced physical therapists. As noted in my report, the effect on the first group of five patients was apparently so deleterious I hesitated to extend the investigation until these patients could be observed more fully. My report was not written up until a year later, at which time four still had four plus blood Wassermann reactions and one, two plus. All of the patients lost weight and were, as a group, weaker and in poorer health after the treatment than before. There was no evidence leading me to believe the spirochetes had been killed *in situ* in any of the patients or that their condition as syphilitic patients had been in any way improved by the heat.

Bessemans investigated thoroughly the effect of local and general heat as produced by playing streams of hot water on the part, complete immersion, hot-air incubators, hot-air convection with a blower and heat from actinic apparatus, using a thermoelectric needle to ascertain temperature and using rabbits and human subjects. Water in the immersion baths on humans reached 113 degrees Fahrenheit. Eighty-two chancre patients and several secondary cases were treated. He says of the immersion baths, "No action appeared on the miliary syphilids of the intact epithelium. The appearance of new syphilids was not prevented. The Wassermann pursued its normal evolution. This treatment does not favor clinical cure." Carpenter investigated the effect of heat produced by short radio waves (a very ideal method of producing heat in the animal body) on twenty-five syphilitic rabbits. One died from the heat; there was a suppression of clinical manifestations in the majority, but a cure is not claimed in a single instance.

Taking into consideration the rabbit's vastly greater resistance to infection with human syphilis and its much higher normal temperature, the experiments reported would not lead one to believe that heat within the range tolerated by man would have much influence on human syphilis. Hot baths were tried repeatedly when the disease was first recognized.

I have the complete works of eleven syphilographers, writing before 1565 A. D., mentioning the hot bath, the earliest being 1499 A. D. One cannot help but admire the intelligence and keen observation of one author, who, writing in 1563, says, "In the meantime the warm Bath, whether natural or artificial, weakens the Patient to no Purpose. For there are few or none that have been cured either by the external or internal Use of the hot mineral Waters. Or, if some have found themselves relieved by the hot Bath, they have soon relapsed, and sometimes into a worse than their former State."

The very dogmatic statement, "Nonspecific vaccines, and inoculation of luetics with malaria and other fever-producing organisms, draws value from the same fact—temperature elevation," is open to argument as well as the last conclusion, "the bath should displace foreign protein and nonspecific vaccine therapy for the reason that it is more rational and far more certain of producing the physiological response sought for by treatment." Joseph E. Moore, *Journal of the American Medical Association*, November 28, 1931, page 1586, says that fever is not the only factor in malaria therapy.

Wagner-Jauregg's assistant, Gerstmann, told me personally he believed their results at Vienna with malaria therapy were superior to those reported elsewhere because they have an almost afebrile strain of malaria which they have kept so by using only man-to-man transmission.

Bessemans says, "It is not unknown to us that some authors (Gerstmann, Weygandt, Muhlen, Kirschbaum, and others) report lasting remission in general

paralysis, where the malarial treatment has produced no lasting elevations of temperature; that even certain rare cases have been reported (Hermann, Brutsch) where the impaludation pursued an almost afebrile course, and where, nevertheless, favorable results occurred."

Joseph Schumacher has carried out exhaustive experiments to try to determine what the curative factor in so-called fever therapy is. His conclusions are that the fever has nothing whatever to do with the curative influence. Permit me to quote this author who used numerous antigens, yeast, sterile milk, lipoids, etc.: "The mode of action of malaria therapy, according to our present investigation, is based upon the extensive destruction of red blood corpuscles and other tissue cells (spleen, etc.) through the infection, with the resultant development of autogenous lipid-albumin compounds, which occur in a similar way, following the syphilitic infection of a tissue. These lipid-albumins also act as an antigen in this case, the symptoms of the defensive activity of the system being expressed by an increased production of lipoproteolytic ferments. It is to the action of these ferments that those spirochetes succumb which are located in the brain and cord, and which are otherwise out of our reach.

"It is also probable that after the cure of the malarial infection with quinin, and the subsequent flooding of the system with innumerable dead plasmodia, foreign lipid-albumin compounds (from the plasmodia) also cause the production of ferments."

This brings into question the interpretation of fever as being the beneficial factor in all cases where some form of parenteral antigen has been used, such as that reported by Rolly and Meltzer. After all, fever may be a post hoc propter hoc observation.

Hardesty of the University of Kansas applied Schumacher's conclusions in giving 467 injections of lipid-protein to seventy-five syphilis patients in all stages. Chills and fever occurred in only three patients, on the day following the first or second injection. The maximum febrile elevation was only 0.87 degrees centigrade. Five advanced cases of paresis showed one remission, two improved, and two unimproved; one parietic not advanced had a remission; results surely comparable to malaria therapy. Hardesty's conclusions are: "(2) The method is convenient, safe, and practically free from unpleasant after-effects. (3) Increase in appetite and weight, with disappearance of subjective symptoms, is early and striking. . . (6) Improvement is apparently not due to the fever, as the rise in temperature is slight and frequently absent."

It is my opinion that the hot bath has no place whatever in the serious treatment of human syphilis, nor can it in any way be substituted for nonspecific protein or lipoprotein therapy on account of the absence of the essential antigenic factor. I believe that heat *per se* or heat produced by physical means, in treating human syphilis, is not only valueless but actually harmful.

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HENRY MEHRTENS, M. D., AND P. S. POUPIERT, M. D. (Stanford University Hospital, San Francisco).—The clinical improvement observed in patients after hyperpyrexia produced by baths cannot be adequately explained until a great deal more is understood about its results on blood chemistry. Doctor Donaldson's paper is an effort along the right lines, as only by such an understanding can we get from this method of therapy its full usefulness. We shall be interested in following Doctor Donaldson's work along these lines, particularly when his series has proportions large enough to permit statistical handling.

After our experience with a series of more than fourteen thousand hyperpyrexial baths we are convinced of the therapeutic usefulness of the method in careful hands, but we are still intrigued by the question of just why the improvement occurs.

BACTERIOPHAGE AS A THERAPEUTIC AGENT IN GENITO-URINARY INFECTIONS*

By E. W. SCHULTZ, M. D.
Stanford University

DISCUSSION by Frank Hinman, M. D., San Francisco;
Lloyd Kindall, M. D., Oakland; Donald A. Charnock,
M. D., and A. Elmer Belt, M. D., Los Angeles.

PART II*

I HAVE said nothing as to the apparent relationship of dosage, and route to the clinical results realized. Here again definite statements are impossible from the reports at my disposal, but certain general deductions seem possible. In the first place, it is apparent that larger quantities of 'phage instilled into the urinary tract are more effective than smaller doses. In the series of seventy-nine cases which failed to respond, over half of the patients received instillations of less than ten cubic centimeters of undiluted 'phage; and some of the cases were given only one or two subcutaneous injections. Of those reported cured or clinically improved, over two-thirds had been treated with larger instillations, that is, amounts ranging from twenty to thirty cubic centimeters of undiluted 'phage administered in one dose.

We may, then, summarize the results reported on the treatment of chronic pyelitis and cystitis with the statement that of 151 cases 79 apparently failed to respond, while 72 were considered to have been either cured or definitely improved clinically. Of the latter, 42 (28 per cent of the 151 cases treated) may be classed as both clinical and bacteriological recoveries; 17 of the 72 cases (not included in the 42 just mentioned) are known to have suffered recurrences, while 13 of the clinically improved group never became entirely free of organisms. Larger instillations of 'phage appear to be more effective than instillations of smaller amounts. Not a few of the cases in this series of chronic cases suffered more or less severe anatomic disturbances of the urinary tract, which tends to confuse the significance of these figures.

Let us turn now to an analysis of the forty cases of acute pyelitis and cystitis reported. You will note that the number of cases in this series is much smaller than in the previous series. These cases offer much less difficulty to the urologist, consequently there have been fewer requests for 'phages to treat such cases. Of this series all but five seem to have responded promptly, both clinically and bacteriologically. This represents recoveries in 87 per cent of the cases, in contradiction to the 28 per cent unquestionable recoveries in the series of chronic cases. Of the thirty-five which responded, twenty-seven (or 77 per cent) became clear within forty-eight hours; six between forty-eight and seventy-two hours; the remaining two between the third and tenth day. Two of the cases recurred within ten days.

*From the department of bacteriology and experimental pathology, Stanford University, California.

*Read before the Western Branch of the American Urological Association, November 6, 1931.

*For Part I, see January California and Western Medicine, page 33.

Although this series is small the results appear significant. It would, however, be interesting to see a review of results in which every other case had been treated by simple lavage and alkalinization or other routine procedures. However, in making such a comparative study the time interval between the first treatment and recovery would have to be given consideration, together with the possibility of natural 'phage contributing to some of these recoveries.⁴

B. Cystitis and Pyelitis Caused by Organisms Other Than *Bacillus Coli*:

Only a few case reports fall into this miscellaneous group. They include four cases of staphylococcus infections, two of which made prompt recoveries; two cases of *Streptococcus fecalis* infection, both of which responded; one case presenting a mixed coli and pyocyaneus infection failed to respond, as did another presenting a mixed coli and proteus infection.

C. Hydronephrosis and Pyonephrosis:

Of several cases diagnosed as hydronephrosis and as pyonephrosis in which the infections were treated with homologous 'phages, all failed to respond. Possibly we have no right to expect bacteriologic cures in cases such as this.

D. Prostatitis and Seminovesiculitis:

Of seven cases of chronic prostatitis, two of which were said to be accompanied by a vesiculitis, all yielding staphylococcus on culture, only two seem to have been improved by 'phage treatment. These were treated by instillations of 'phage into the bladder. Of those which failed to respond, all but one received the 'phage by the subcutaneous route. Two cases of prostatitis yielding *Bacillus coli* in culture, treated by bladder instillations of coliphage, responded within forty-eight hours.

E. On the Possible Value of 'Phage Against Secondary Invaders in Acute Gonorrhea:

It is generally recognized that in all cases of gonorrhea there is a well-defined tendency to secondary infection by Gram-positive pyogenic cocci, a tendency which is often distinctly aggravated by improper treatment of the primary infection. In the acute, but more particularly in the chronic cases, it is not unusual to find a varied bacterial flora in the exudate. It is, therefore, not illogical to assume that, in the male at any rate, secondary bacterial invaders play some part in maintaining a subacute and chronic inflammation in the urethra and its diverticula. It is probable that to them may be attributed some of the more serious complications of gonorrhea, such as strictures of the urethra, certain of the more chronic types of prostatitis, etc. With this in mind Dr. Lloyd Kindall of Oakland, California, and I have recently undertaken to investigate the possible merits of 'phages directed against these secondary invaders. Answers to two questions are being

⁴ Sickenga, 1925; Larkum, 1926; Krueger, Faber, Schultz, 1930.

sought by us. These are: (1) Is the course of an acute Neisserian infection appreciably shortened by combining the administration of 'phages against secondary invaders with the customary therapeutic procedure; and (2) Is there any appreciable reduction in the incidence and severity of the postgonorrheal complications, with the timely use of 'phages directed against the common secondary invaders. These are obviously questions which can be answered only on the basis of a respectable number of cases so treated, so that at the moment we are not in a position to prophesy what the answer will be. All I am permitted to say is that in the few patients treated thus far, with the secondary invaders in mind, the results in several patients have been somewhat intriguing. I throw this bit of information out at this time for what it may be worth.

The procedure we are following is to culture the urethral exudate with appropriate precautions at intervals of several days and to test the various secondary invaders isolated for susceptibility to 'phage. In the event the organisms are lysed the filtrate of the culture is then employed as a daily irrigant of the anterior urethra, which may be administered by the patient himself with the aid of a bulb syringe. The purulent exudate should be preferably washed from the anterior urethra with sterile physiological saline solution. The 'phage may then be instilled and should be retained there for fifteen to twenty minutes. Since the most common secondary invader in gonococcus urethritis appears to be *Staphylococcus aureus*, and since antistaphylococcus 'phages are available which lyse more or less actively three-fourths of the strains of this organism, it is not absolutely necessary to culture and carry out 'phage-susceptibility tests, except for informational purposes, should one wish to follow such combined treatment. However, in a scientific inquiry designed to bring out more or less definite information such details cannot be rightfully omitted.

In connection with the use of 'phages for the more common secondary invaders, such as the staphylococcus, the question which no doubt arises in your minds is, is there any indirect evidence to support the assumption that staphylococcus 'phage may actually function *in vivo* to eliminate such secondary invaders? In response to such a question one may, I believe, reply in the affirmative. Probably the best evidence that bacteriophage possesses therapeutic properties lies in observations made on staphylococcus skin and wound infections. This is not only revealed by reports in the literature, but also by the results reported to our laboratory. Of sixty-three cases of furunculosis, for example, reported to us, forty-four, or approximately 70 per cent, were believed to have been definitely helped by 'phage treatments. Of sixteen cases diagnosed as carbuncles, fourteen were considered to have resolved more rapidly than is usually the case. Of seventeen cases of assorted wound infections, including phlegmon, abscesses, draining sinuses, etc., in all of which staphylococcus appeared as the

chief or only offender; eight attributed the rapid improvement to 'phage. I have personally seen some skin and wound infections under treatment in which it would have been hard to believe that the 'phage treatments had not been responsible for the rapid regression of the lesions. True, not all patients so treated have responded to the treatment, but would this not be exceptional as therapeutic agents go? Personally, I am inclined to look favorably upon the use of bacteriophage in all sorts of staphylococcus infections, that is, in infections in which the causal organisms can be lysed *in vitro*, and in the event of failure, inclined to ask myself whether perchance the 'phage was improperly applied, a question which indeed has not been given sufficient attention in any of the studies which have been carried out on the merits of 'phage therapy.

We may, therefore, assume from the evidence at hand that something may be gained by the timely administration of 'phages against the secondary invaders which tend to make their appearance in acute gonorrhea. But, you ask, why limit yourself to secondary invaders—why not a 'phage for the gonococcus also? This would be indeed an intriguing therapeutic experiment. Unfortunately, however, definite 'phages for the gonococcus have thus far apparently not been isolated and the task of finding 'phages for this organism is not simplified by the exacting cultural requirements of the organisms together with its marked tendency to undergo spontaneous autolysis. Thus far the only investigators who claim to have been successful in recovering 'phages active for the gonococcus are Pelouse and Schofield (1927) of the Urological Service, University of Pennsylvania, who claim to have recovered 'phages with regularity from fourteen to twenty-one days old autolysed gonococcus cultures. Their results, however, while convincing enough in the first analysis, tend to leave one in doubt when the evidence is more carefully weighed. I am not as yet willing to accept that bacteriophage represents simply an exaggeration of a natural tendency for bacteria to undergo autolysis. Schmidt-Labaume and Fonrobert (1929) in a careful and extensive study were not only unable to confirm the work of Pelouse and Schofield, but also unable to recover a 'phage from any one of a number of potential sources to which one might turn in making such a search. It is to be hoped, however, that these results will not discourage greatly further inquiries in this direction, not only because of the possible practical value which successful results may have, but also because of the theoretical interest attached, especially if the relationship of bacteriophagy and bacterial autolysis should be established through further studies of this type on the gonococcus and on the meningococcus (Pfalz, 1927), a very closely related species.

FACTORS WHICH TEND TO LIMIT THE USEFULNESS OF BACTERIOPHAGE AS A THERAPEUTIC AGENT

From the results which we have just surveyed it is apparent that bacteriophage not infrequently

fails to produce a therapeutic effect, even though the causal organism is actively lysed *in vitro* by the particular 'phage employed. How may these failures be accounted for? Undoubtedly various factors may contribute to failure, but certain ones seem more apparent than others. Failure to employ a sufficiently active 'phage is offered by most investigators as one very important reason. But, while the use of highly active 'phages is of great importance, actual contact with the causal organisms is of no less importance, and it is here that probably one of the most important obstacles to successful 'phage therapy lies. Somehow the impression has become current that all that is necessary is to administer to the patient a few cubic centimeters of 'phage by some convenient route and that the agent, because of its ability to regenerate at the expense of the organism, will soon make itself felt everywhere in the infected areas. This contagious spread from organism to organism takes place easily in the test tube, but within an infected tissue not so. Here, not only mechanical barriers may interfere with the free passage of the lytic principle from one organism to the next, but the lytic agent may be either washed out, as in urinary infections, or rendered inert by adsorption to leukocytes and colloidal aggregates in the inflammatory exudate (Bruynoghe and Maisin, 1922; Eliava, 1931; Applebaum and MacNeal, 1931). Obstacles of this sort can obviously be more or less overcome only by the administration of more 'phage than would otherwise be required. But this is not the only stumbling block in the way of 'phage therapy. We have also to face an important biological property exhibited to a more or less marked degree by all microbes—that of *bacterial variation*. Individual bacteria even in the same culture are seldom if ever absolutely identical throughout in morphology and in their biologic capacities, by which I may include, in the case of pathogenic species, *virulence*, or the capacity to produce disease. Some species, such as *Bacillus coli*, exhibit this variability more than others. I am sure that the majority of physicians who send us cultures from urinary infections never question the homogeneity of the individual organisms in a colon infection of the urinary tract. This is far from the truth and explains why we have urged that at least five or six colonies be transferred to slants from the plated specimen. When such individual transplants are tested against 'phage, one may find that one, two, three, or four may be more or less susceptible; the remainder entirely resistant. Of course, they may all be susceptible or all resistant. The point is that they often are not uniformly susceptible to given 'phages. The practical bearing of this fact is obvious. Unless a 'phage, or collection of 'phages is employed which potentially will at least lyse all or the great majority of organisms present, there is no good reason why we should expect a therapeutic result under such circumstances. A few organisms may always escape, even under the most favorable circumstances, but if the numbers are not large and

the predisposition to infection not too great, these may not be a source of further trouble after the weight of the infection has been lifted. Among the staphylococci there is greater homogeneity of the bacterial population within a given strain and this may account for the generally more favorable results with 'phage in staphylococcus infection. While there is always a chance of replacing 'phage susceptible organisms in an infected area by 'phage-resistant variants, this should not be regarded as a source of danger. To say an organism has become 'phage-resistant is not the equivalent of saying it has become more virulent. Indeed, the contrary is much more likely to be the case, 'phage tending to precipitate a variation from the "S" to the "R" variant, the latter not only differing from the "S" type in cultural characters, but also in *virulence* (Hadley, 1928). Indeed, this is what probably not infrequently occurs in urinary infections following the appearance of natural 'phage, at which time there may be a distinct shift from the more acute to the chronic clinical picture. Larkum (1926) has concluded from a study of urine specimens from something like fifty cases that natural 'phage may either terminate an acute case or transform it into a chronic (that is, less stormy) one. Bacteriophage resistance is, therefore, not synonymous with increased virulence, and I should add that resistance to one 'phage does not necessarily mean resistance to all other 'phages.

Still other factors may operate to negate the action of 'phage *in vivo*. Specific antiphagic antibodies, clearly demonstrable in the serum of experimental animals, repeatedly injected with 'phage, have been found to make their appearance naturally in the blood of patients suffering from certain infectious diseases,⁵ but for reasons that I cannot take time to develop at this time it seems unlikely that interferences due to this cause arise very often.

GENERAL DIRECTIONS FOR THE THERAPEUTIC ADMINISTRATION OF BACTERIOPHAGE

From what has been said regarding the factors which may disturb 'phage action *in vivo*, it is apparent that in the administration of 'phage for therapeutic purposes it is imperative to do all we can to bring 'phage in sufficient concentration in contact with the infected tissue.

Pyelocystitis.—In pyelocystitis, appropriate 'phage should not only be instilled into the bladder, but also into the affected kidney pelvis. *Approximately five cubic centimeters of the undiluted 'phage should be instilled into the kidney pelvis and at least thirty cubic centimeter into the bladder, all in one dose.* The 'phage should be retained by the patient as long as possible. For this reason it is desirable to administer the treatments in the evening; together with general and urinary sedatives. We have, as some of my audience is aware, been urging that the patient be kept quiet, not only during, but for several days.

⁵ Sonnenschein, 1925; Katsu, 1925; d'Herelle, 1928.

after the treatments have been administered. A few physicians have interpreted this as meaning hospitalization, which is certainly not necessary, unless otherwise indicated. Of importance *is the rest and quiet* wherever it may be had. This also has been objected to on the ground that it is not considered good *psychology* to restrict the activities of these patients (especially the chronic cases). It may be good psychology to allow such patients to continue their normal activities while under treatment, but it certainly cannot be said to be good therapeutics. If we bear in mind that the results of 'phage therapy swing directly on what is to happen within the course of only a few days, we can readily understand why too much importance cannot be attached to each and every factor that may perchance disturb the possibility of successful recovery by this particular therapeutic procedure. I wish that I could impress on all physicians who use 'phage in the treatment of chronic pyelocystitis with the fact that the results of 'phage therapy do not rest upon weeks and months of treatment, but upon a single treatment or two. Since this is the case, is it not worth while to dedicate those few days in a whole-hearted manner to the experiment? It is certainly not going to disturb the "psychology" of a patient to inform him that quiet and even rest in bed for a few days, either in a hospital or at home, is a part of the treatment. Should the experiment fail, which will be known in less than a week, there are still the drugs and the routine visits to his physician to fall back on. What about the patient who responds to the treatments—is he to be allowed to indulge himself freely in work or in play immediately after a happy therapeutic response? I would say, no. We may have our doubts as to the therapeutic merits of 'phage, drugs, etc., but we must not allow ourselves to become indifferent to the value of *rest*. Fatigue and exposure should certainly be avoided until the tissues have had an opportunity to build up some immunity against re-infection. We must not confuse recovery with immunity. While recovery may be related to gradual or sudden acquisition of immunity, this, as you well know, is not always the case. It is needless to add that all other medication should be withheld while 'phage therapy is being tried. It was once believed that alkalization of the urine facilitated bacteriophagy in urinary infections, but this apparently is not the case from the work of Frisbee and MacNeal (1930), who found that the lytic activity of anticoli 'phage is most effective against colon bacilli grown in urine of an acid reaction (pH 5.6 to 6.3).

Prostatitis.—In prostatitis the treatment which has been suggested consists of first massaging the prostate, following which the patient empties his bladder, and then instilling about thirty cubic centimeters of undiluted 'phage into the bladder, introduced with the hope that some of the 'phage will find its way via the posterior urethra into the prostate.

Infected Wounds.—In infected wounds, etc., the best procedure seems to be to apply the 'phage in the form of wet dressings or as an irrigating fluid, supplemented by the direct injection of 'phage, in small quantities (fractions of a cubic centimeter) near and into the infected area. Inflammatory exudate, which can be readily removed, should first be removed because of the 'phage inactivating action which it tends to exercise.

Furuncles and Carbuncles.—Furuncles and carbuncles have been most successfully treated by injecting fractions of a cubic centimeter (one-tenth cubic centimeter) intradermally near the base of the individual lesions and by applying 'phage-soaked compresses on those which have been opened. I should add that in pyogenic coccus infections the 'phage may not only function by lysing the organisms, but also according to certain investigations, by exercising an opsonizing action, thus facilitating phagocytosis.⁶

Septicemia.—In septicemia the 'phage has been administered intravenously in doses ranging from one to five cubic centimeters without serious disturbance in at least ten cases to my knowledge, and with remarkable results in several cases. Of course, intravenous injections of any foreign material should always be made guardedly. We are now prepared to supply 'phage suspensions which have been largely freed of the disturbing ingredients represented in culture media, and which should prove more acceptable for intravenous use.

Peritonitis.—In acute peritonitis, following ruptured appendix, surgery of the colon and rectum, etc., in which colon bacilli and pyogenic cocci are the offenders, the treatment which suggests itself is to introduce directly into the peritoneal cavity from thirty to forty cubic centimeters of a pooled polyvalent mixture of bacteriophages active for these organisms. This may be administered with the aid of a suitable catheter introduced through the laparotomy wound. The bacteriophage mixture must, of course, be bacteriologically sterile and should be warmed to body temperature immediately before administration. The treatments may be repeated every six to twelve hours over a period of several days.

CONCLUDING REMARKS

In closing, may I state that there is little doubt in my mind that in certain types of infections, bacteriophage, properly chosen and properly administered, is a therapeutic agent worthy of trial. Its usefulness is, however, limited not only by the difficulty which attends the procurement of suitable 'phages for individual cases but, to some extent, also by such obstacles as are offered by bacterial variation; by the difficulty of always contacting adequately the organisms within an infected tissue; loss of 'phage by drainage and its inactivation by the inflammatory exudate, etc.

⁶ d'Herelle, 1921; Weiss and Arnold, 1924; Nelson, 1924; Smith, 1928.

Despite these potential obstacles I am inclined to feel, from the results reported in the literature and those just referred to, that in any infection for which a good 'phage can actually be provided 'phage therapy always deserves a trial. To do so means only a short interruption in whatever other treatment may be in progress. Only a few days are required to determine whether or not bacteriophage will turn the tide. The procedure will not harm the patient and may yield a happy result. This, I believe, sums up the present status of 'phage therapy.

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DISCUSSION

FRANK HINMAN, M. D. (384 Post Street, San Francisco).—Doctor Schultz has given a very clear presentation of the theory and use of bacteriophage. In urological cases there are three practical difficulties which are worthy of discussion, namely, (1) the collection of the culture for selection of the 'phage, (2) the accurate diagnosis of the urogenital infection and proper selection of the case in which the 'phage may be of use, and (3) the method of administration.

It is well known that many urogenital infections are mixed type infections. This is particularly true of pyogenic infections of the urinary tract. It has been a matter of experience in the use of 'phage that the initial benefit is followed by a recurrence, subsequent bacteriological cultures perhaps showing a different type of organism. The first cultures usually are colon bacilli, and it is probable that this has outgrown or overgrown other organisms present. In such cases, of course, the procedure would be to use a 'phage for the secondary type organism and, after this, should a third organism appear, have still a third 'phage made and used.

From the clinical standpoint, accurate diagnosis of urinary infections and urogenital infections in which there are associated infections of both the seminal and urinary tracts, is often extremely difficult. There are two distinct types of infection which are to be distinguished at the outset: the specific infections and the nonspecific or pyogenic infections. Under specific infections come tuberculosis, gonorrhea, actinomycosis, and a considerable list of so-called intercurrent types of nephritis which occur typically at the height of infectious fevers as in typhoid, pneumonia, influenza, etc. So far, bacteriophage has found no use in any of these specific types of infection. Under the nonspecific or pyogenic group, there are two distinct subdivisions: first, those urinary infections unassociated with any abnormality of the urogenital tract which would act as an accessory of infection, and second, those infections in which there is an associated abnormality or defect which does act as an accessory of the infection. In this second group, obviously it would be illogical to use bacteriophage before correcting the urogenital abnormality back of the infection. Any obstructive condition, for instance, should be recognized and relieved before undertaking to cure such infections with bacteriophage. The majority of these infections will clear up of themselves once the obstructive condition has been relieved. After it has been satisfactorily relieved and infection persists, bacteriophage would then be indicated and some of the most striking results following the use of bacteriophage occur in just this type of case, of which the following is a striking example: In a woman with a prolonged history of pyuria, exacerbations of fever and urinary sepsis with the accompanying bladder symptoms of frequency, tenesmus and burning that go with inflammation of the bladder, urological examination revealed a large, round stone in the right renal pelvis. The stone was removed by pyelotomy and, on opening the pelvis, marked hemorrhagic inflammation of the mucosa was noted. The pyelostomy tube was left in for the purpose of lavage to

treat this localized inflammation. Following operation, convalescence was complicated by persistent fever, pyuria from the right side. There was no reduction in kidney function. After two weeks with daily pelvic lavage with all sorts of antiseptics without reduction of temperature, bacteriophage was made and instilled by ureteral catheter into the renal pelvis every three hours for six or eight applications, following which the temperature came down to normal, the urine cleared completely of evidence of infection and has remained so now for three months since.

Of the pyogenic infections without urogenital abnormality there are two distinct types, one of which forms a distinct clinical entity as the acute suppurative nephritides due to coccal infection, usually following streptococcus infections of the skin, such as boils, furuncles, carbuncles, etc. These are distinct cortical infections of the kidney, and it is hard to see how, with present methods of use, bacteriophage would be of any benefit. These cases go on to formation of multiple cortical abscesses, to a distinct carbuncle, or to perirenal abscess formation. They sometimes clear up before reaching any of these three stages. The second subdivision of this group are the more bacillary types of pyelonephritis which come on because of intestinal complications, or if of recurrent type often go to the atrophic pyelonephritic stages and are more typically chronic than the preceding group. Bacteriophage is not successful in this group because it also is more of a diffuse parenchymal infection than when limited to the pelvis. There are also distinct subdivisions of the urogenital group besides the obstructive types, and many of these respond quite favorably to the use of bacteriophage. One particular group would be the ascending types of urinary infection of urethral origin, as is frequent in women, or following a chronic prostatitis, as is not uncommon in men. The bacteriophage is often successful in clearing the urinary infection, but is practically useless so far as the prostatitis is concerned. There, of course, would be no logic in using bacteriophage for infected hydro-nephrosis or pyonephrosis. Therefore, from what has just been briefly said, it is distinctly apparent that the careful selection of cases for the use of bacteriophage is the first essential to a proper evaluation of its benefits.

From what has been said in Doctor Schultz's paper, it is apparent that therapeutic benefit can be derived only when the 'phage comes in direct contact with the invading organism. This, with our present methods of use, is not produced in most cases of nephritis or pyelonephritis nor in prostatitis or other parenchymal type infections. It can be produced, however, in pyelitis, ureteritis, and cystitis. It is encouraging to note what the essayist says about the possibilities of intravenous use of bacteriophage, and it certainly would be well worth while to emphasize this experimental side of the problem, as it would constitute an ideal method of use in the majority of urological infections. In those few cases in which bacteriophage can be applied locally, its effects sometimes are surprisingly successful, and it certainly is a therapeutic move in the right direction and well worth continuation of the experimental efforts which Doctor Schultz and others are making.

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LLOYD KINDALL, M. D. (400 Twenty-ninth Street, Oakland).—When a person of note is cured by the use of 'phage therapy, we have a tendency to become enthusiastic. When we try a 'phage and get negative results, we then have that tendency of becoming discouraged and probably giving it up. To determine the therapeutic value of 'phage, we must follow instructions as given by Doctor Schultz in the above article. If, as Doctor Schultz has shown us in his report, we may expect more results in the acute than in the chronic cases, we should not wait until the cases become chronic before attempting to obtain a 'phage. Therefore, to more successfully determine the value of 'phage therapy, we should make cultures immedi-

ately in all genito-urinary infections when the patients present themselves. In the chronic cases the percentage of cures is lower and the improvement slower. This condition is due in most cases to some anatomical condition causing stasis or to some associated pathological condition, such as prostatitis, seminal vesiculitis, diverticuli, etc. 'Phage therapy improves many chronic cases, and is a valuable adjunct in the treatment of anatomical deformity.

It is of utmost importance, when obtaining specimens for culture, that the culture be not contaminated, because a 'phage developed for a contaminating organism would probably have no beneficial effect.

Doctor Schultz has laid particular emphasis on larger doses and sufficient rest following administration. Hospitalization is necessary in only a small percentage of cases.

Regarding the secondary invader in gonorrhea, I took ten patients coming to me within the first forty-eight hours after the appearance of the urethral discharge, and after careful preparation I made cultures of the pus located well in the urethra. These cultures were then sent to Doctor Schultz, and every one of them showed a secondary invader, practically all of them belonging to the staphylococcus group. In two of these cases, 'phages which completely lysed the secondary invader was administered to the patients as mentioned in the above article. These two patients were entirely well, with no complications, within twenty-one days after the beginning of the discharge. This interesting work has prompted us to start another experiment, namely, making cultures at weekly intervals (including prostatic and seminal vesicle fluids in the later stages) to see if the secondary organisms change. I have also started, experimentally, the use of polyvalent staphylococcus 'phage in the beginning of some of the acute cases of gonorrhea. Having had quite a number of successful cases, I am very grateful to Doctor Schultz for the help and advice which he has given me in the treatment of many of these genito-urinary infections, as well as for his interest and co-operation in experimenting with the secondary invader in gonorrhea.

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DONALD A. CHARNOCK, M.D., AND A. ELMER BELT, M.D. (523 West Sixth Street, Los Angeles).—The problem of bacteriophagy is steeped with interest and intrigue. It is a penetration into the dim world of which we know little but which opens up vistas of thought that point to important discoveries.

The work of Doctor Schultz and his coworkers of the bacteriophage laboratory at Stanford has been excellent. Their careful accumulation of data has taken much effort.

Their figures bear out in the main the results we have experienced in approximately one hundred cases with 'phages furnished for the most part by Doctor Schultz over a period of nearly two and a half years. In pyelocystitis we have used 'phage in both old and new cases. It has been our experience that the recent cases of an acute nature are more amenable to 'phage therapy than the stubborn chronic cases which have resisted all forms of treatment. We have often seen a new growth of another organism occur in these cases after the first invader has apparently been wiped out by the 'phage.

We have not used 'phage therapy for prostatitis or semiovesiculitis, nor have we used it with Neisserian infections. Our experience has been mainly with pyelocystitis. Our most gratifying results with bacteriophage have come from its use in wound infections. Renal surgery is so often complicated by wound infections that it has been our practice to take cultures at operation and have a 'phage available at the first sign of wound breakdown. The results in these cases is little less than magic. When possible we obtain a 'phage for direct use in the wound at operation. This is greatly simplified by the polyvalent preparation.

DENTAL PROBLEMS OF CHILDREN*

By CHARLES A. SWEET, D. D. S.
Oakland

PHYSICIANS recognize the fact that a clean mouth is one of the requisites to good health. The dentist knowing this has endeavored to make mouths healthy, but in many cases has failed. His failure in most instances could be eliminated if the physician would insist that the mouths of all children under their care be placed in a normal condition.

How much easier it is for us to insist that a child be cared for before defects are present than to have the patient, after a sleepless night, come with a toothache, and the parent with a belief that carious deciduous teeth need not be cared for. Also that the forceps are the surest and best remedy for the relief of this pain, without taking into consideration the future damage that will be caused by this procedure.

PROPHYLAXIS

If the child is referred to the dentist at two years of age, it is his duty not only to make a thorough examination of the child's mouth, but he should endeavor to educate the parent on the necessity of a healthy mouth, because 70 per cent of all infections enter the body through the oral cavity.¹

During this first visit to the dentist, the child's teeth should be thoroughly cleaned and the parent given a practical demonstration of the proper brushing on the teeth. This brushing always seems simple, but I have yet to have a parent who could effectively brush his or her child's teeth. In many instances they are resistant to this instruction, evidently feeling it is a reflection on them, but in the majority they are eager for knowledge.

This first visit should be repeated every four months thereafter, and each time the teeth should be thoroughly polished and examined for any defects such as cavities or improper bite. A check-up should be made of the parent's brushing and any points missed in the instruction at previous visits should be stressed until the home care is perfected.

Physicians know that children always imitate, and if the example set is proper the child will become an efficient caretaker of his own mouth and will reduce greatly the incidence of caries. When the parent is willing we spend from fifteen to thirty minutes on each patient instructing the parent in the art of brushing the teeth clean. The child, if over the age of six, is instructed at the same time. At each visit thereafter further instruction is given until we feel they have mastered the technique. We also emphasize the fact that the night-time is the most important, for while we sleep the saliva does not flow or the tongue move and, as they both have an inhibiting action, we must retire with a clean mouth.

* Read before the Pediatric Section of the California Medical Association at the sixtieth annual session at San Francisco, April 27-30, 1931.

MALOCCLUSION

I am satisfied that 75 per cent of all malocclusions may be avoided or corrected between the ages of two and five years with very little mechanical manipulation if there is coöperation of the parent and the dentist. Of course the dentist must have some knowledge of this phase of children's work and a determination to guide his patients along a normal course. The greatest hindrance to this is the parent's insistence of a guarantee that there will never be the necessity in the future for orthodontic interference and the parent's failure to realize that this type of work is worth a reasonable fee and should not be gratis.

It is impossible to estimate the great amount of good done for the patient with this work; therefore the value of this service is very seldom appreciated by the parent.

CARIES

All carious teeth should be filled as soon as the cavities are detected because (1) they are possible foci of infection; (2) cavities inhibit proper mastication and so bring about a lack of development of the maxilla and mandible; (3) because caries expose the rest of the teeth in the mouth to a like destruction; and (4) it is our duty to eliminate pain whenever possible.

Teeth, whether permanent or deciduous, are deserving of our best attention. Therefore there is no place in dentistry for the temporary fillings (unless they be temporary) or for the painting of silver nitrate on carious areas to cover our own lack of ability or desire to do proper work. All deciduous teeth should be restored by a metal restoration such as silver amalgam, gold or copper amalgam. The use of cements or gutta percha is contraindicated except as temporary fillings.

These metallic restorations should be contoured to resemble the original outline of the tooth, polished on all surfaces, and be given proper relationship to the other teeth and not impinge on the gingival tissues. With these requirements in mind, very little training is needed by the physician to observe how well his children are being dentally cared for.

In the last ten years much has been written on nonvital teeth, but little attention or study has been paid to deciduous teeth that also too frequently lose their pulps by trauma, and by infection through the process of caries. Many dentists and physicians, because of their belief that all nonvital teeth are foci of infection condemn the deciduous teeth without giving much thought to them. I can assure you that after twelve years' work with these nonvital deciduous teeth that at least 75 per cent may be retained in a healthy condition if properly treated and restored to normal occlusion. The reason for our success with these teeth is probably due to the fact that a continuous absorption process is going on, not only of the roots themselves, but the alveolar process surrounding the roots and the mucous membrane.

Even though we may care for the teeth properly as dentists, we still may not be able to elimi-

nate all dental disorders, for infections, diet, and bodily mechanics are all a part of the process of tooth destruction and no one by itself is the only causative factor. We as dentists can minimize these accessory disorders, but without the aid of physicians, who are capable of caring for these predisposing factors, we will not be able to attain our ideal in preventive dentistry.

In conclusion, we may quote Johnson's statement: "No child should ever be permitted to grow up with a physical handicap that modern science can correct."²

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THE DOCTOR AND THE INDUSTRIAL COMMISSION*

By O. F. McSHANE, Esq.
Utah Industrial Commission

IT is a little out of the ordinary for a layman to appear before a body of professional and scientific men to discuss matters of which they have made a life study, but on your invitation I am glad to discuss some topics in which we are mutually interested.

The subject assigned to me is: "The Doctor and the Industrial Commission," and on this I submit the following:

MUTUAL CONFIDENCE NECESSARY

A mutual confidence and sympathetic understanding between the medical profession and the Industrial Commission is a matter of prime importance if a proper functional relationship is to be established and maintained. This desired relationship can only become a fact when each of us approach, with a single purpose, our task of reconstructing and assisting a broken workman to readjust himself economically. That purpose should be to give the injured man the maximum recovery within a minimum period of time. The longer a patient is away from employment the more difficult to get him back to work. An unreasonably long period of disability frequently results in the patient commencing to feel sorry for himself. When this symptom develops, changes may take place in the man, from a morbid lack of interest in recovery to actual insanity. Our objective should be constantly kept in view, unvaried by any selfish interest or semblance of favoritism. Such procedures will materially assist in a speedy consummation of the desired end.

COMMISSION AND MEDICAL WORK MUST
BE HARMONIOUS

The Commission and a physician in all cases must perform their respective tasks in such fashion as to simulate a perfect synchronization

* From the Utah State Industrial Accident Commission.

* Read before the Utah State Medical Association at its 1931 annual session at Salt Lake City, September 9-10, 1931.

of their respective duties. We cannot work at cross-purposes and render efficient service. No duty to the injured must be neglected or left partially performed. It must be ever kept in mind that the unlucky and crushed workman, whom we are trying to restore to health and economic usefulness, is not an object of charity who is being given treatment at the hands of a sympathetic employer by and through Workmen's Compensation Insurance, the premiums for which are paid by said employer. The employer, at most, but advances said premiums, adds the cost to the price of the manufactured article and passes it on to you and to me and other consumers for payment with a profit added. As a matter of fact most employers actually increase their profit by providing Workmen's Compensation Insurance. It is a sort of cost-plus proposition.

Let us make this point clear by a simple illustration: Take a beet-sugar company, for example. Said company must, as other companies do, keep a very precise and accurate account of each expense item entering into the cost of their product. It must be charged with interest on the original investment, taxes, deterioration of equipment, including building, machinery, cost of raw materials, labor, replacement, and many other expense items among which will appear premiums for Workmen's Compensation Insurance. Let us assume that during a period of one year four million bags of sugar are turned out and placed on the market at a total cost of \$16,000,000 or \$4 per bag. Let us further assume that the compensation cost item amounts to one-fourth cent per bag. That the manufacturer sells to the jobber at \$5 or at a profit of 25 per cent. Don't you see that he takes the same profit on the insurance premium item that he takes on any other cost item?

It must also be kept in mind that this same broken workman has had taken from him the right to bring an action at law for damages. This is a very important right and justified by society upon the theory that the remedy at law is uncertain, expensive, and takes an unreasonable length of time in which to secure relief thereby. That compensation is certain and immediate, reaching the injured worker or his dependents in case of death, at the time when it is most needed and at little or no expense.

OBLIGATIONS TO THE INJURED

Having laid down the fundamental condition of a proper relationship between the Commission and the medical profession, and having cast up a picture of the injured worker and the background from which he emerges and comes under your care and our jurisdiction, we inquire what are our respective duties to him? What can we do to best serve his interests and what can you do? Our purposes are identical, yet our courses are somewhat different. We have the administration of the law which so materially affects his interests; you have the reconstruction of his injured anatomy, the result of which is to determine his future economic status. Aside from a careful

scrutiny of every administrative function affecting the injured man and the resolving of every reasonable doubt in his favor, we can also materially serve his interests by a proper attitude toward your profession.

HOW THE COMMISSION CAN AID THE MEDICAL PROFESSION

For us efficiently to serve the injured workman we can and should know each other personally and intimately. By personal contact we are afforded an opportunity to inform ourselves better concerning the duties and responsibilities of each other. We will understand better the difficulties encountered by each in the discharge of his respective duties. We become more sympathetic when things go awry, and are less likely to arrive at faulty conclusions. Criticism under such conditions will seldom degenerate to the status of fault-finding. We are more able to evaluate properly our respective services.

The Commission can help your association, and thereby the injured worker, in the following matters:

We should consider—until a preponderance of evidence to the contrary compels a different conclusion—that every duly licensed physician and surgeon is competent to treat all patients coming under his care if he has the facilities with which to carry out the treatment indicated by the nature and the extent of the injuries in any particular case. The Commission should loyally support each physician in charge of a patient until conclusive evidence accumulates which indicates to the Commission that the desired results cannot be obtained with this particular doctor on the case. That evidence will not necessarily consist of lack of skill or thorough training on the part of the doctor; it may consist of a lack of facilities to carry on the treatment in an acceptable manner, or it may be due to the unreasonable attitude of the patient who refuses to coöperate in the treatment.

We should, and do, insist that doctors have carte blanche authority to procure x-ray pictures where there is a possibility of injury to the bony structure and that when such injury is found that pictures showing the progress of the case be taken.

In all puncture wounds we should, and do, insist upon the administration of antitetanus serum in order that the doctor may feel more secure from a development of complications.

When a satisfactory progress is not being made by an industrial patient, the Commission should and does insist upon competent consultation. By consultation it is not to be understood that a friend practitioner be called in to listen to the history of the case, a review of the treatment given, a statement of the conclusions reached by the attending physician, which the consultant is expected to approve. The injured worker and the insurance carrier should be consulted in such cases and the consultant agreed upon. Said consultant should proceed with an independent ex-

amination and study of the case uninfluenced by any opinion expressed by the attending physician. When his study of the case has been completed and his conclusions have been reached, a written report should be made in triplicate—one copy furnished to the attending physician, one to the insurance carrier, and one to the Industrial Commission.

When a patient is discharged it is not only the right, but the duty of the Commission to see that the attending physician has been adequately compensated for the services rendered. Good pay insures good service.

HOW PHYSICIANS AND SURGEONS CAN AID THE COMMISSION

Physicians and surgeons are in a position to render very valuable service to the Industrial Commission in the following particulars:

1. They should report promptly and fully every industrial case. Detailed and careful examinations are not always made. Cases of serious fractures are at times overlooked for months. This is a strong statement, but it is a matter of record. The fact is a challenge to your profession.

2. A very careful record of the progress of the case should be kept and the information summarized in the form of supplemental reports as required by law. Your original report, properly signed by you, should be filed with the Industrial Commission within seven days of the time you first see the patient. You are not permitted to file your report with an insurance carrier or an employer and trust them to furnish the Commission with a copy. A copy from a third party, irrespective of his interest, is not your report to the Commission. Such procedure is contrary to law, and is punishable by a fine of not to exceed \$500. Notwithstanding the persistence of this practice the Commission has never instituted a prosecution. You can help us much by compliance with the law.

3. You can be very helpful by forgetting all personal interest in your cases save superior service to your patients, carefully recorded histories, and the maintenance of high professional standards. Care should be taken never to appear as partisans in a contested case. Cases agitated by a physician who has a fee interest in their success are not as clear-cut as those in which personal interest is not apparent. It is doubtful if as great weight is given, or ought to be given, to the testimony of a physician who manifests a partisan bias influenced by interest. This applies with equal force to the testimony of those who have a professional fee in the offing, or who serve the employer or an insurance carrier, or any other interest, for a price.

4. You can be very helpful to the Commission when called upon to testify in a case if you will deal with admitted medical facts as much as possible and avoid the field of speculation. No professional man can possibly know all there is to know about his chosen profession. It therefore follows that a physician cannot know all about diagnoses. It ought not to humble the pride

of a doctor in reply to a question to state that he does not know the answer. Many questions whose answers must be highly speculative, if not a downright guess, are leveled at you. It is refreshing in wading through a mass of medical testimony to occasionally have a doctor reply, "I don't know." There ought to be more of such testimony. We read many pages of medical testimony, the outstanding characteristic of which is a manifest lack of frankness.

In closing, permit me to say that I like doctors as a class. I have taken occasion to defend them on more than one occasion when attacked. At Atlanta, Georgia, four years ago, I gave expression to my own feelings as well as those of my colleagues in the following statement: "Physicians and surgeons, as a class, are as fine a group of men as it has ever been my privilege to meet, yet it must be kept in mind that it is impossible to find any professional group which will not have a few members to degrade it."

THE PROSTATECTOMY OPERATION : ITS EVOLUTION*

By VERNE C. HUNT, M. D.
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DISCUSSION by *Frank Hinman, M. D., San Francisco;*
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THE condition of prostatism has, no doubt, been experienced by the same percentage of elderly men since time immemorial, or at least since the time at which men lived sufficiently long to enter the so-called prostatic age. Ancient writers considered patients with prostatic hypertrophy and obstruction as suffering from excrescences or carnosities at the neck of the bladder, and when obstruction developed from such cause, interfering with emptying of the bladder, their destruction was attempted by urethral instrumentation. The cause of such obstruction was not known, for not until about the middle of the sixteenth century was the prostate gland (the discovery of which was attributed to Nicolo Ulassa, a Venetian physician) considered the cause of obstruction at the neck of the bladder. After the discovery of the prostate gland, and that with its enlargement obstruction of the vesical neck occurred, methods of treating prostatic obstruction up to the time of the strictly surgical era consisted for the most part of tunneling through the gland. This procedure was practiced by John Hunter, Chopart, Billroth, and others; though the danger was great and there were many fatalities. Very little progress was made in the treatment of prostatic obstruction during the time between the discovering of the prostate gland in about the middle of the sixteenth century until some time after the middle of the eighteenth century, when surgical procedures were instituted for removal of stones from the bladder. It is true that cystostomy had been accomplished

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many times before this time, chiefly through the perineum, as an emergency procedure for the removal of stone and, incidentally, portions of prostatic tissue. The names of Sir Henry Thompson, Gouley, Desault, Sir William Blizard, Sir William Fergusson, Amussat, Guthrie, Mercier, and many others figure prominently in the evolution of the management of prostatic obstruction through the presurgical years and into the surgical era. Apparently the modern surgical procedures for removal of the prostate gland are the ultimate results of perineal lithotomy for stone. Perineal lithotomy was described in the medical treatises of the ancient Hindus. Through the centuries frequent reference is made to those who cut for stone. The Hippocratic oath contains the statement, "I will not cut persons laboring under the stone, but will leave this to be done by men who are practitioners of this work." Apparently the operation of cystostomy must have resulted from the procedures intended primarily for the removal of stone.

EARLY METHODS OF TREATING PROSTATIC OBSTRUCTION

Covillard in 1639 is said to have performed perineal prostatectomy, during which procedure tissue was removed from the bladder, which was said by Gouley to have been prostatic tissue. This successful procedure was apparently the incentive for similar operations in the seventeenth and eighteenth centuries. Desault and Sir William Blizard carried out practically identical surgical procedures. The operation was subsequently done by Sir William Fergusson in 1848 (reported in 1870), Billroth in 1867, Spanton, and others. Gouley, in 1873, advocated complete perineal prostatectomy; however, this was not done until 1891 by Goodfellow. Part of the prostate gland was first removed in 1832 by Amussat during the course of suprapubic lithotomy.

Transurethral surgical procedures began to be developed at about this time. Guthrie, in 1834, divided the bar at the neck of the bladder by using a catheter carrying a concealed blade. Similar instruments invented by Mercier were called "prostatomes" and "prostatectomes."

Injection of various drugs in an effort to cause shrinkage of the prostate gland developed about 1874, when Heine injected iodine into the gland. Langenbeck and Iverson injected ergotin subcutaneously. The danger of suppuration which might result fatally prevented these procedures from being widely adopted.

The ingenuity that was exercised by those in the sixteenth to the early nineteenth century for the relief of obstruction at the neck of the bladder is most interesting. In general, however, it may be stated that direct surgical attack on the prostate gland was seldom attempted before the period of antiseptic surgery. When portions of prostate gland were removed it was only in the course, for the most part, of perineal or suprapubic incision for stone. The occasional surgical attack before this time was considered a most daring and courageous undertaking.

MODERN METHODS OF TREATING PROSTATIC OBSTRUCTION

Belfield must be considered one of the pioneers in modern surgery of the prostate gland. He summarized, in 1890, in his article, "Operations on the enlarged prostate," his information at that time with a compilation of the operations on the prostate gland that had been done up to that time in America and abroad.

The contributions of Lister mark the beginning of modern prostatic surgery. To quote from Belfield's personal communication under date of March 30, 1929: "It is to be recalled that suprapubic cystostomy for stone, discarded for centuries, was resurrected in the early eighties of the nineteenth century as one of many tentative beneficiaries of Listerian principles. For obvious reasons, so obvious that, according to one of his assistants, Lister never ventured to perform it, suprapubic cystostomy did not benefit through Listerism as did operations in clean flesh; stones were still extracted through perineal incisions, through which gravity furnish a cardinal element of Listerism, drainage. Yet the obvious mechanical advantages of the suprapubic incision inspired surgeons to devise means of protection against infection of the wound, including the prone position, the continuous bath, and the two-step incision—the first step exposing but not opening the bladder; the second step, five or more days later, opening the bladder." Belfield stated further in the personal communication: "In my earlier days I often made a prostatectomy in two stages: the first comprising an incision to the bladder plus a perineal boutonniere for the insertion of a large bladder drain; the second stage, opening the bladder and enucleating the prostate, a hand above, a finger below, with closure of the bladder." It was inevitable that the revival of suprapubic cystostomy for stone should allure venturesome surgeons to attempt more complete removal of prostatic obstructions under the eye. Belfield's table indicates that three men—von Dittel, Belfield, and McGill—reported such work within two years; Kümmel also operated in that period, but his publications did not appear until later.

Belfield was of the opinion that von Dittel was the first to attack the prostate gland from above by resecting a portion of a large middle lobe during the course of exploratory cystostomy, presumably for stones. Belfield believed, though, that he himself was the first to perform deliberately suprapubic cystostomy for the avowed and sole purpose of removing obstructing portions of the enlarged prostate gland. His cases reported in 1887 were the first recorded attacks on the prostate gland from above, with the sole exception of von Dittel's case. McGill of Leeds, accredited in Europe as a pioneer, performed his first operation and made his first publication in 1887. Belfield believed, and had no reason to doubt during his life, that the pioneers in suprapubic prostatectomy were von Dittel, Belfield, and McGill in the order named, stating that he

realized that priority in its performance is a matter of little moment to anyone except the pioneers themselves, and perhaps of little moment even to them beyond their consciousness of worthwhile achievement.

Belfield, in his article published in November 1890, reviewed the cases from the literature and from personal communication in which operations had been done on the prostate gland. In all, there were 133 cases. In forty-one of these cases the operation was by perineal incision with a mortality rate of 9.7 per cent; in eighty-eight cases operation was by suprapubic incision with a mortality rate of 13.6 per cent, and in four cases operation was by the combined suprapubic and perineal incisions. The perineal operations consisted of prostatectomy or incision of the bar at the neck of the bladder in twenty-two cases by Keyes, Harrison, Gouley, Belfield, Cabot, Watson, Chismore, Wishard, Hutchison and Briggs, and partial prostatectomy was done in nineteen cases by Ashhurst, Keyes, Harrison, Bryant, Coulson, Morton, Dunn, Pilcher, Gouley, Landerer, Billroth, and Frank. The suprapubic operations, likewise, consisted of partial prostatectomy with the removal in some instances of but small pieces of tissue. In this method of procedure the names of von Dittel, Belfield, Kümmel and McGill appear most prominently; McGill performed twenty of the eighty-eight suprapubic operations. Operations for prostatic obstruction at this period were done usually only when there was complete obstruction by prostatic enlargement or associated vesical calculus in which the catheter had been indispensable, and the results were determined in terms of whether or not there was restoration of voluntary urination after operation. In the cases reviewed by Belfield, voluntary urination resulted in 68 per cent of the patients after perineal operation and in the same per cent of the patients after suprapubic operation. Belfield's contribution in 1890 may well be used as an analysis of the status of prostatic surgery at that time.

THE PERINEAL OPERATION

Perineal prostatectomy has emanated from the operations of perineal lithotomy and subsequent perineal prostatectomy through its many phases of development until the modern perineal prostatectomy of Young may well be regarded as the most widely known and accurately developed perineal operation. It is probable that perineal prostatectomy preceded the suprapubic operation by several years. Deaver stated that it was employed first for malignant disease by Billroth in 1867, by Demarquay in 1873, by Langenbeck in 1876, by Spanton in 1882, and by Leisrink in 1883. The perineal approach to the prostate gland was early recommended by Harrison, Ashhurst, Annandale, Zuckerkandl, Watson, von Dittel, and many others; however, little progress was made in its development beyond the removal of parts of the gland until Goodfellow in 1891 performed perineal enucleation of the lateral lobes with removal of the median lobe. He stated

at that time that so far as he knew he was the first deliberately to devise and to carry out perineal prostatectomy. Goodfellow in 1904 reported the results of such a procedure in seventy-two cases in which he had operated, with only two fatalities. Incontinence immediately, and often persisting for four months, was frequently noted.

Samuel Alexander in 1896 reported two cases in which he had done prostatectomy by the combined suprapubic and perineal incisions, enucleating the prostate gland through the latter. The opening in the bladder above was made simply for the purpose of pressing down the prostate gland with the finger so that it could be reached from the perineum. He stated that by this method the mucous membranes of the bladder and of the prostatic urethra remained uninjured. The bladder was drained through the membranous urethra and perineum. Nicoll of Glasgow in 1894 described a similar combined operation except that he did not open the urethra, but drained the bladder subsequently through the suprapubic incision.

Parker Syme in 1899 expressed the opinion that prostatectomy performed through the perineum and without opening the bladder suprapubically was safer than the procedures which involve suprapubic cystostomy. Murphy, Gouley, Guiteras, and others at about this time contributed instruments and modifications with the idea of simplifying the perineal procedure. Syme devised a balloon which when inflated in the bladder served as an excellent method for making traction on the prostate gland.

The perineal operations at this time were of two types, the distinction lying chiefly in whether or not the membranous urethra was opened; when the urethra was not opened it was called the extra-urethral perineal prostatectomy, which Guiteras described as the Zuckerkandl operation. When the urethra was opened the operation was called intra-urethral perineal prostatectomy. For the most part the operations through the perineum up to approximately the time that Young first described his method of perineal prostatectomy were much the same; they differed in the type of incision in the skin (whether it was a median incision as used by Syme and others, or whether it was a semicircular incision in front of the anus as accredited to the so-called Zuckerkandl operation); they differed also in whether the urethra was opened, in the methods of making traction on the gland by hooks and various retractors, and in making counterpressure suprapubically without incision or with incision to the bladder, or by suprapubic cystostomy. The perineal operations up to this time had been more or less blind procedures, and not until Proust presented his method had the procedure been conducted under the eye. Young in 1903 described his operation, which was a modification and combination of various features of the different perineal operations at that time. Young's first interest in the perineal operation was to improve methods of making traction on the prostate gland.

The result of his effort to improve on Sym's method of providing traction on the prostate gland was the metal double-bladed prostatic tractor which has become so well known. The operation which Young described at that time has endured in principle to the present time and has been modified in detail by him, and by Hinman, Geraghty, Lowsley, and others. Young's original operation was carefully illustrated and described in detail in the *Journal of the American Medical Association* in October 1903, and elsewhere, including Keen's Surgery.

Young at this time contributed an excellent prostatic tractor. He visualized the entire procedure of prostatectomy as an extra-urethral operation. He devised an operation for the preservation of the ejaculatory ducts, and in many instances executed the operation without injury to the mucous membrane overlying the enlarged prostate gland. At the time this operation was described and illustrated he had operated in fifteen cases by the method described, with recovery of all patients, with a good functional result in all and never more than temporary incontinence. From time to time, Young added improvements to the technique, which in the main have consisted of various types of capsular incisions which have facilitated enucleation of the gland, and the preservation of the verumontanum, ejaculatory ducts and urethra.

Many unfortunate sequelae subsequent to perineal prostatectomy were reported from time to time, most important of which were injury to the rectum, often resulting in recto-urethral fistula and urinary incontinence. Incomplete removal of all adenomatous tissue at times required post-operative use of the catheter. Young's contribution in 1903 accomplished much to obviate such sequelae. Inasmuch as his operation was not universally adopted, largely because of its difficulties and the requisite of accurate anatomic knowledge of the perineum, unfortunate sequelae still occurred. In his hands, the technique was productive of excellent results with little incontinence, and was accompanied by a low mortality rate.

Geraghty in 1922, for the purpose of insuring greater safety to the sphincters by Young's operation in general hands, presented "a new method of perineal prostatectomy which insures more perfect functional results." Geraghty's modification of Young's method was for the purpose of exposing the prostate gland without opening the membranous urethra and without injury to the external sphincter. A specially constructed tractor, devised by Henry Freiberg, was used which passed from the meatus into the bladder. This tractor, when the blades were opened, so engaged the prostate gland that perineal urethrotomy was not necessary to introduce a prostate tractor as used by Young, obviating the necessity of exposing, opening, or disturbing the membranous urethra and its musculature in the perineal dissection.

Hinman in 1926 presented certain modifications of Young's operation and stated that with

these modifications the mortality rate was between two and three per cent, and of the patients who survived, approximately 95 per cent were cured of the urinary disturbance. Furthermore, persistent urethrorectal fistula, and incontinence as a result of the operation had not occurred in any case. The time of closure of the perineal fistula had been considerably shortened by the use, for a number of days after the operation, of a retained catheter, to which a Connell suction apparatus was attached to promote catheter drainage and to keep the perineum dry. He said that the technical modification which he presented rendered the operation easier and the results better, and had to do with the dissection method of exposure and the manner of opening the prostate gland for its enucleation.

In recent years Young, Wildbolz, and others have presented methods of restoring the continuity of the prostatic urethra by end-to-end suture when the prostatic urethra has been removed in the process of total enucleation of the enlarged glandular tissue. Various other factors in recent years, particularly the methods of hemostasis, notably the hemostatic bags, have contributed materially to the perfection of the perineal method of prostatectomy.

SUPRAPUBIC PROSTATECTOMY

The simplest method of affording lasting relief from urinary retention as the result of prostatic obstruction during the latter half of the nineteenth century was the formation of a permanent suprapubic fistula, often executed by puncture with a trocar or sometimes by cystostomy, a tube being more or less constantly worn.

John Packard in 1887 stated that Nicholas Franco of Lausanne was the first surgeon who opened the urinary bladder by an incision made above the pubis. His operation was performed in 1560 for the removal of a calculus, and although it was successful he is quoted as advising others not to follow his example. During the entire eighteenth century there was much difference of opinion regarding the choice of methods of draining for retention or operating for stone. The perineal method was most largely employed, but it is of interest that Packard quoted the opinions of men favoring the suprapubic method over the perineal. Among those favoring the suprapubic method were: John Hunter, Weldon, Dorsey, Decamp, Phillips, Amussat, Parrish, Gouley, and many others.

The perfection, by many methods, of the operation of suprapubic cystostomy for urinary retention and stone led to exploration of the bladder and removal of portions of prostatic tissue which consisted for the most part of intravesical enlargement, in the course usually of operations intended for the removal of stone in the bladder. As previously stated, von Dittel was the first to attack the prostate gland from above by resecting a portion of a large middle lobe, performing this operation in February 1885, with subsequent death of the patient. Belfield's and

McGill's work and publications followed in 1887 and 1888. Belfield subsequently experienced difficulty in removing intra-urethral prostatic enlargement for which he thought the perineal operation was highly effective, but inasmuch as the perineal operation failed in the detection and removal of intravesical enlargement, he suggested the combined suprapubic and perineal approach which seemed to him to fulfill every indication in every case.

To Fuller, it seems, belongs the credit for first accomplishing not only the removal of the intravesical enlargement of the prostate gland, but the intra-urethral prostatic enlargement as well by the process of suprapubic enucleation. This procedure was described by him in 1895 and was devised and practiced by him the previous year. He stated at that time that unsuccessful results of other surgeons by the suprapubic method were due to incomplete removal of the enlarged gland; the object of many surgeons had been simply to chisel out a channel or remove only intravesical tumors. Even though priority of the method of suprapubic enucleating belongs to Fuller, in which procedure he had a large and most gratifying experience, Freyer must be credited with popularizing the operation as previously described by Fuller and Guiteras.

It is worthy of notation here that in the latter part of the nineteenth century, until approximately 1900, the operations of castration and ligation of the internal iliacs had been extensively employed in the treatment of prostatic obstruction for the purpose of causing atrophy of the gland through absence of testicular influence on the prostate gland after castration, and the loss of blood supply through ligation of the iliacs. These procedures rapidly became obsolete through failure of the former to produce the desired effects, except in a few instances, and the great risk in the latter procedure.

It may be stated that even though Freyer seldom mentioned Fuller or Guiteras and failed to credit them with priority of suprapubic enucleation, he must be credited with calling the profession back to the rational treatment of enlargement of the prostate gland after it had digressed by resuming the nibbling operation, and that of castration plus ligation of the iliac vessels. Also, his numerous literary contributions with detailed reports of cases and the rapidity with which the operation was executed, the low mortality rate, and excellent results, unquestionably elevated the standard of prostatic surgery and popularized the suprapubic method of enucleation.

By this time, radical cure of prostatic obstruction and urinary retention by prostatectomy had become accepted as the rational method of treatment. However, controversy persisted over the choice of suprapubic and perineal methods with the general acceptance that all cases could not be most effectively treated by simply one or the other method. Chute in 1905 showed that the chief advantage in the perineal operation existed in its

lower mortality rate which was slightly less than that of the suprapubic operation. The perineal operation persisted as the one of choice, as shown by the figures of Watson and of Proust in which the incidence of the suprapubic operation to the perineal operation was about 1:3. Young, Cabot, Whiteside, Escat, Proust, Moynihan, Albarran, Deffis, Tuffier, Hartman, Pouchet, Roffin, Deaver, Fergusson, Legueu, Rivier, Heresco, and many others contributed during the first decade of the present century to the standardization of methods and analyzed results obtained by the various methods.

J. Bentley Squier in 1911 presented a radical departure from the methods previously used by Fuller, Freyer, and others in the accomplishment of total suprapubic prostatectomy. He emphasized the advisability of making the incision in the bladder large enough to admit two or three fingers, and as high up on the fundus of the bladder as possible, close to the peritoneal reflexion, calling attention to the fact that the situation of the incision in the bladder had much to do with the length of time required for healing of the suprapubic sinus.

During this period it may be stated that much was being learned regarding the effect on the patient of prostatic obstruction and the causes of death following prostatectomy. It had been noted, as Paul M. Pilcher stated, that death without good explanation occasionally occurred in some cases in which the good general appearance of the patient lured the surgeon into a state of false security, and this led to the general opinion of that day that more preoperative information was in order to obviate the continued occurrence of death among apparently good surgical risks. This author, among others, recognized the necessity for thorough preoperative examination, utilizing the conservative methods of overcoming urinary obstruction by intermittent urethral catheter, or, if need be, by suprapubic cystostomy under local anesthesia. Young was one of the first to observe the benefits derived from preliminary drainage of the bladder. In 1899, in a patient in whom there was deep uremic coma and a hugely distended bladder, catheterization was attempted without success and suprapubic drainage was carried out. Young witnessed the amazing disappearance of coma, and restoration of an apparently normal condition as a result of drainage. One month later Young carried out his first suprapubic prostatectomy, removing a huge prostate gland successfully through the previous cystostomy incision. The case was the first recorded two-stage suprapubic prostatectomy. Young appreciated the benefits to be derived during the period of drainage by catheter or cystostomy, from the administration of large quantities of water, and the publication of his observations in three cases furnished the groundwork for the method of preparatory treatment, which has since been carried out and to the perfection of which there have been innumerable contributions. That

preliminary-drainage was necessary and extremely advantageous in many cases of prostatic obstruction, particularly those in which the obstruction had been of long standing, was generally accepted. There was much conjecture and little true understanding of the factors involved whereby improvement occurred subsequent to drainage until renal functional tests made their appearance and the relationship of blood chemistry to certain types of disease became manifest. Cabot presented a paper in 1916 in which he considered "the mechanism of the protection afforded by the drainage of prostatics as a preliminary to operation." During the first ten years of this century, at least the necessity of drainage was recognized and as a result of inability to accomplish urethral catheterization cystostomy often became the necessity, if not the choice, of methods of drainage. The great improvement that was noted after drainage naturally led to the adoption of the two-stage prostatectomy, which, when necessary, has for the most part been confined to the suprapubic operation on the grounds that as long as the cystostomy opening is present for drainage, it may be readily utilized for the second stage or enucleation of the gland. The advantages of two-stage suprapubic prostatectomy were apparent to most surgeons, and these were presented by Judd, Lewis, Paul M. Pilcher, Lilienthal, Gardner, Chute, Legueu, and many others.

A noteworthy observation of a student of the evolution of the various procedures well into the second decade of this century is that, developmentally at least, the suprapubic procedure lagged considerably behind the perineal operation. That an anatomic and pathologic background existed for each method there was little question. Accuracy of execution of perineal prostatectomy was first achieved by Young when he brought the entire operative procedure of perineal enucleation into view. It will be recalled that all of the descriptions of the pioneers of suprapubic prostatectomy, from the nibbling operations of the late eighties and nineties, including practically all of Freyer's work, were operations conducted blindly and under the guidance of the finger. The suprapubic operation lacked the accuracy of conduct possessed by the perineal method through failure of surgeons to allow light to enter the bladder suprapubically.

The suprapubic incision, for the most part and by most surgeons, was a small one, including that of the skin and muscles and the bladder itself. Judd was one of the first, in 1911, to present a method of more liberal suprapubic incision of the abdominal wall and of the bladder, with the subsequent aid of retractors in the bladder to visualize the procedure in the one-stage operations to remove more certainly all adenomas, prostatic tags and other tissues which might subsequently be responsible for stricture, and to control active bleeding. J. W. Thomson-Walker, Lower, McCarthy, and others have contributed to the development of the one-stage visualized suprapubic prostatectomy.

In most of the operations of prostatectomy the principle of suprapubic drainage has been maintained; details as regards the number and size of drainage tubes have differed. As the visualized method became one of choice among a number of surgeons, one of suggested change was that of Lower, who suggested the omission of suprapubic drainage, and accomplishment of suprapubic prostatectomy with closure. Lower maintained that operation for removal of the prostate gland which required drainage was not ideal, but he had previously considered drainage necessary because it was the general practice and also because of postoperative oozing which nearly always occurred. He felt sure that if a method could be devised whereby hemorrhage could be controlled completely, there could be no objection to closing the bladder primarily and depending on an inlying catheter for urinary drainage. To this end he adopted a method whereby the bleeding is controlled by suture, which procedure he described and illustrated in 1927, at which time he had employed the method in a series of fifty cases, in most of which the bladder had been closed at the time of operation.

Simultaneous with the work done by Lower in perfecting a method of prostatectomy with closure, Harris of Sydney was perfecting a method of suprapubic prostatectomy with closure which differed materially from the method of Lower. This procedure has been carefully described and illustrated elsewhere. As yet, these methods of prostatectomy with complete closure have not been enthusiastically adopted; however, the exponents of these methods predict greater usage of the method with increasing experience in their execution.

It may be stated that the previously existing controversy over the choice of operation and the advantages and disadvantages of the perineal and suprapubic procedures, one over the other, has arrived at a most amicable compromising position in that the surgeon who is best fitted in prostatic surgery is he who is familiar and equally proficient in the execution of either method, choosing the operation which best suits the condition, rather than fitting the patient to the operation. It is likewise recognized that best results will be obtained by one or the other method in accordance with the training and experience of the surgeon in one or the other operation.

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DISCUSSION

FRANK HINMAN, M. D. (384 Post Street, San Francisco).—The history of the development of methods of prostatectomy has been presented in a very complete and interesting manner. Only two routes stand out as worthy of consideration: The suprapubic transvesical approach after the method of Fuller-Freyer, and its subsequent modifications; and the perineal approach on the principles of anatomical dissection as first presented by Young with its subsequent modifications of manner of enucleation, closure and drainage. But there have been many other routes used for the removal of enlarged prostate and it may be of interest to present these more or less diagrammatically:

METHODS OF PROSTATECTOMY

A. Urethral methods. (Chips from hyperplastic projections into vesical neck and prostatic urethra. Palliative and require repetition.)

1. "Incisor" procedures.
 - (a) Bottini's "incisor."
 - (b) Collins' "knife."
 - (c) Freudenburg's "lithotriptor."
2. "Forage."
 - (a) Luy's principle of fulguration and diathermy.
3. "Punch" procedures in modification of Young's principle for median bars.
 - (a) Caulk's cautery punch.
 - (b) Day's transfixation coagulation punch.

B. Surgical methods. (Attempt at radical and permanent cure.)

I. Suprapubic approach:

1. *Transvesical: Fuller-Freyer method and modifications* of suture and closure. (Squier, Judd-Hunt, Lower-Harris.)
2. Extravesical through space of Retzius (Von Stockem).

II. Infrapubic by division of suspensory ligament of the penis.

III. Perineal:

1. Median transurethral methods (Goodfellow, Alexander, Berndt, Marion Syms).
2. Lateral approach of Willms.
3. Anatomical conservation by surgical dissection of perineum.
 - (a) Proust.
 - (b) Zuckerkandl.
 - (c) *Young's operation and modifications.*
 - (1) Geraghty.
 - (2) Wildbolz.
 - (3) *Transprostatic en masse enucleation, urethral catheter drainage and suture closure without packs giving obliteration of fossa and hemostasis, with low mortality, safe, speedy convalescence, good structural and functional results.*
 - (4) Complete extracapsular prostatoseminal vesiculectomy for cases of pure hyperplasia with pronounced infection and vesiculitis.

IV. Ischiorectal method of Voelker.

V. Transrectal method (used by the late Doctor Clark of Gilroy, Calif.). (Unpublished.)

It is seen by the above analysis of methods that development has been along two distinct routes—the suprapubic transvesical Fuller-Freyer route, and the perineal conservative Young route.

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ANDERS PETERSON, M. D. (1136 West Sixth Street, Los Angeles).—Doctor Hunt has given us a very complete history of the operation of prostatectomy.

Some time ago the American Urological Association made plans to have a number of the most qualified members write a complete history of the development of urology. The men were chosen to write upon the subject in which they were most eminently interested. Doctor Hunt's paper this afternoon deals only with the operation of prostatectomy; but, as I have had an opportunity to read the entire monogram, I can appreciate the large amount of time which he has devoted to the entire field of prostatic surgery.

All of these contributions are to be put in book form, which should remain for all time a most valuable reference for both students and practitioners.

THE LURE OF MEDICAL HISTORY

ESSAYS ON THE HISTORY OF EMBRYOLOGY*

THE FOUNDATIONS OF MORPHOLOGIC EMBRYOLOGY

III

By A. W. MEYER, M. D.
Stanford University

ONLY a few things on generation deserving of mention are known to have appeared during the long span of years between Galen and the seventeenth century—a period of about fifteen hundred years.

LEONARDO DA VINCI, 1452-1519

Since such a genius as Leonardo da Vinci belongs in this period, one is prompted to inquire regarding his ideas concerning generation. Although Leonardo's interest in anatomy was artistic rather than scientific, a man of such great accomplishments cannot be overlooked. His anatomical drawings attest to his surpassing skill even if they do not have great scientific value and seem to have been largely without influence on the course of anatomy. McMurrich's careful study clearly shows that Leonardo, like Galen, fell into errors because he transferred anatomical arrangements found in other mammals to man himself. Although he must have been familiar with the discoidal placenta, he nevertheless represented a full-term human fetus in an opened uterus, accompanied by an ungulate placenta. According to McMurrich the allantois accompanying the figure of a child is spoken of as passing "between the hands and knees of the child as it lies curled up, and it passes between the arms and the inner (*silvestra*) part of the thigh as far as the flanks and ties and encloses, making itself an investment for the child from its flanks downward." He also spoke of a male and a female portion of the cotyledons and wondered which was expelled at birth.

Leonardo seems to have accepted traditional views, and when he departed from these his conceptions really do not represent an advance. Since the mother breathes for the child, he argued that the maternal heart also beats for the fetal heart and that the latter remains motionless until birth. He believed in maternal impressions and stated that the soul of the mother forms the fetus, the two having but one soul. He thought that the maternal emotional states not only may mark, but may kill the fetus. Like many others he bowed to religious authority in this connection, saying that he leaves to them "the rest of the definition of the soul," since they know all secrets by inspiration.

Leonardo's statement that although the fetal kidneys function, no urine is expelled because the

* This is the third paper of a series of essays on this subject. Previous papers were printed in this journal as follows: Part I in December California and Western Medicine, page 447; Part II in January California and Western Medicine, page 40.

fetal head presses upon the perineum, seems particularly strange since his drawings of fetuses do not show them in this position. He thought that the pressure of the head in this region forced the urine to escape through the urachus and then through the mouth of the uterus. These ideas of his emphasize again that not even a great genius could correctly imagine and delineate the story of prenatal development.

VOLCHER COITER'S STUDIES OF INCUBATING EGGS

Early in the seventeenth century Volcher Coiter, of whom Singer, in the "Evolution of Anatomy," says, "So far as modern times are concerned, Coiter is unquestionably the father of anatomy," opened incubating eggs daily and recognized the blastoderm as the rudiment of the chick, but he apparently saw many things incorrectly. It is possible that Coiter was overimpressed with the fanciful ideas of his teacher Aldrovandi, who, according to Harvey, held

"that the yelk rises during the first days of the incubation into the sharp end of the egg, a proposition which no eyes but those of the blind would assent to; he thinks also that the chalazae are the semen of the cock, and that the chick arises from them, though it is nourished both by the yelk and the white. In this he is obviously in opposition to Aristotle, who held that the chalazae contributed nothing to the reproductive powers of the egg."

HIERONYMOUS FABRICIUS AB ABQUAPENDENTE

Hieronymous Fabricius ab Abquapendente, a pupil of Fallopius, also published illustrations on prenatal development of the chick, snake, hen, rat, and some of the domestic animals, and held that the chalazae do not represent the sperm of the cock but take part in the formation of the embryo. While professor of anatomy at Pavia, Fabricius published two editions, one in Venice in 1600 called "De Formato Foetu," and a second at the time of his retirement in 1604, in Patavia. De formatione ovi et pulli tractatus accuratissimus, was published in the latter city after the death of Fabricius in 1621. According to Harvey, Fabricius and Aristotle "have written with so much accuracy on the generation of the chick from the egg that little seems left for others to do."

HARVEY

However, Harvey did not accept the idea of Aristotle that the first rudiment of the embryo appears on the pointed end of the egg and hence doubted whether Aristotle really saw the beginnings of the chick. Yet Harvey thought the hind and doe conceived "by a kind of contagion," and says that Aristotle "did not sufficiently understand how the efficient cause (the seminal fluid of the cock) acted without contact; nor how the egg could of its own accord, without any inherent generative matter of the male, produce a chick." But neither did Harvey know this although he rightly stated that no bird egg can develop an embryo without the "inherent generative matter of the male." Yet Harvey wrote:

"Whoever has pondered with himself how the brain of the artist, or rather the artist by means of his brain, pictures to the life things which are not

present to him, but which he has once seen; also in what manner birds immured in cages recall to mind the spring, and chant exactly the songs they had learned the preceding summer, although meanwhile they had never practiced them; again—and this is more strange—how the bird artistically builds its nest, the copy of which it had never seen, and this not from memory or habit, but by means of an imaginative faculty (phantasia), and how the spider weaves its web, without either copy or brain, solely by the help of this imaginative power; whosoever, I say, ponders these things will not, I think, regard it as absurd or monstrous that the woman should be impregnated by the conception of a general immaterial 'idea' and become the artificer of generation. . . . "Since, then, nothing can be apprehended by the senses in the uterus after coition, and since it is necessary that there be something to render the female fruitful, and as this is probably not material, it remains for us to take refuge in the notion of a mere conception and of 'species without matter' (species sine materia), and imagine that the same thing happens here as everyone allows takes place in the brain, unless indeed there be someone 'whom the gods have moulded of better clay,' and made fit to discover some other efficient cause besides any of those enumerated."

COMPOSITION OF SPERM

The idea that sperm is composed of a material and an immaterial part is an old one. The latter was spoken of as the aura spermatica and was sometimes looked upon as a vapor or volatile part which reached the ovary through the circulation or through the mouth and cavity of the uterus and the lumen of the tubes. The finding of narrow or obstructed vaginae in pregnant women, the smallness of the lumina of the tubes and failure to find sperm in the uterus and tubes in all cases were partly responsible for this idea. With what ingenuity Spallanzani attacked and settled this old problem by experiment will appear in the last essay. From a publication of A. Spigelius, 1631, largely on the pregnant state and fetal anatomy, entitled "De Formate Foetu," and accompanied by fine but fanciful illustrations, we pass again to William Harvey, whose work on generation appeared in 1651. Harvey, who had been a pupil of Fabricius, was very loyal to his teacher. His greatest merit in regard to embryology lay in the fact that he systematically studied not only the incubating hen egg but the physiology of sex and mammalian propagation and supported the idea of epigenesis, or the gradual formation of the different parts of the embryo out of unformed material. This idea had been suggested by Hippocrates and Aristotle, but seems to have gained its first real support from Harvey's work. Harvey, who used a lens in his studies, declared:

"Now it appears clear from my history that the generation of the chick from the egg is the result of epigenesis, rather than of metamorphosis, and that all its parts are not fashioned simultaneously, but emerge in their due succession and order; it appears, too, that its form proceeds simultaneously with its growth, and its growth with its form; also that the generation of some parts supervenes on others previously existing, from which they become distinct; lastly, that its origin, growth, and consummation are brought about by the method of nutrition; and that at length the foetus is thus produced."

Fabricius, whom Singer regards as "the effective founder of modern embryology," had expressed the opinion that most animals come from ova. Harvey likewise believed that some arise from ova and others from putrescent matter. He held that all perfect animals come from ova and unequivocally headed the sixty-second Exercitatio "Ovum esse primordium commune omnibus animalibus." Although the word "ovum" was applied to the beginning of a being, the conceptus in utero was an ovum to Harvey, for the mammalian ovum was not discovered until almost two hundred years later. According to Whitman, Harvey objected to looking for any "prepared matter," believing that every ovum arose *de novo* and that his conception of all animals arising from eggs and of epigenesis was merely that of Aristotle.

Since Harvey could not find substance in the uterus and tubes after coitus nor experimentally demonstrate the presence of a continuous passage through the female reproductive tract by injecting suspended material into the uterus, he concluded that male semen or something called female semen, arising from the ovary, could not enter the uterus and hence could play no part in conception. It was experimental evidence which caused him to turn to the wrong conception of fertilization through distant influence, and prompted him to conclude that the thing he called an ovum—that is, the chorionic vesicle—arose *de novo* in the uterus and was not nourished by it. The method of nourishment of the mammalian conceptus escaped Harvey and he was led astray by what he observed in the hen egg and deer. He concluded that a fetus the size of the thumb was

"nourished only by the albumen that is contained in the conception; in the same way that we have seen the process go on in the hen's egg. The mouths of the umbilical veins are lost and obliterated between the albumen and neighboring humours of the conception and their containing membranes; but nowhere is there as yet any connection with the uterus, although by these veins alone is nourishment supplied to the embryo."

HARVEY ON HUMAN DEVELOPMENT

Regarding human development, Harvey wrote:

"For I rather think that during the first month there is scarcely anything of the conception in the uterus—at all events, I have never been able to discover anything. But the first month past, I have repeatedly seen conceptions thrown off, and similar to the one which Hippocrates mentions as having been voided by the female pipe-player, of the size of a pheasant's or pigeon's egg. Such conceptions resemble an egg without its shell; they are, namely, of an oval figure; the thicker membrane or chorion with which they are surrounded, however, is seen to be covered with a white mucus externally, particularly toward the larger end; internally it is smooth and shining, and is filled with limpid and sluggish water—it contains nothing else."

It may be recalled in this connection that Aristotle said that the human embryo is as large as an ant at the end of the first month. Although I have been unable to obtain satisfactory information regarding the size of the ant Aristotle may have had in mind, it must undoubtedly have been

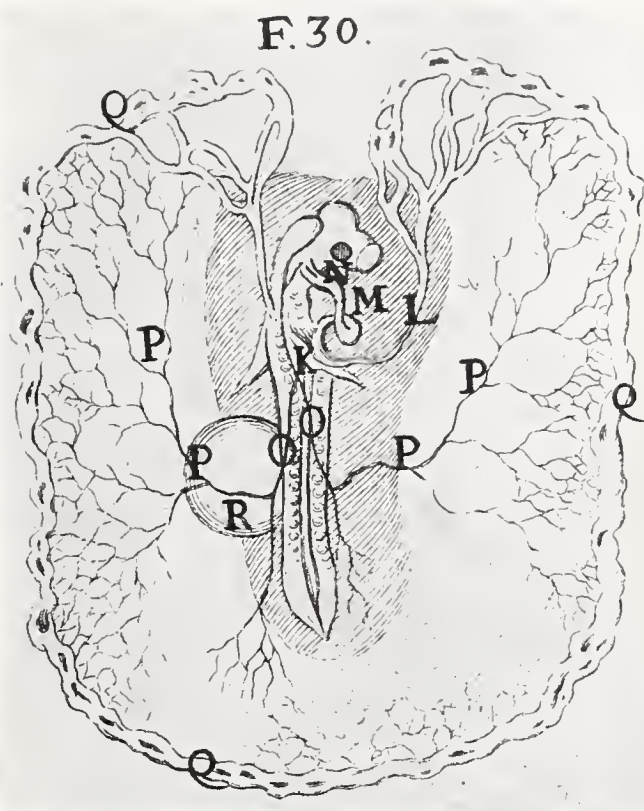


Fig. 1.—After Malpighi. Chick after two days' incubation: K, auricle; L, veins; M, right ventricle; N, left sinus; O, branches of umbilical arteries; P, umbilical arteries; Q, terminations of arteries; R, vesicle near right umbilical branch P is swollen with thin humor or ichor. (This vesicle must have been the extremity of the allantois.)

a large ant, although the small-sized ant would suit the facts. It is extremely improbable that Aristotle could have seen and recognized a human embryo of one month, for the size of such was established only recently.

Harvey's observations on pregnant deer also caused him to arrive at the conclusion that the uterus remains empty for a long time after coitus, for he wrote:

"Having frequently shown this alteration in the uterus to his majesty the king as the first indication of pregnancy, and satisfied him at the same time that there was nothing in the shape of semen or conception to be found in the cavity of the organ, and he had spoken of this as an extraordinary fact to several about him, a discussion at length arose: the keepers and huntsmen asserted at first that it was but an argument of a tardy conception occasioned by the want of rain. But by and by, when they saw the rutting season pass away, I still continuing to maintain that things were in the same state, they began to say that I was both deceived myself and had misled the king, and that there must of necessity be something of the conception to be found in the uterus. These men, however, when I got them to bring their own eyes to the inquiry, soon gave up the point. The physicians, nevertheless, held it among their *αδύνατα*—their impossibilities—that any conception should ever be formed without the presence of the semen masculinum, or some trace remaining of a fertile intercourse within the cavity of the womb. . . . In the dog, rabbit, and several other animals, I have found nothing in the uterus for several days after intercourse. I therefore regard it as demonstrated that after fertile intercourse among viviparous as well as oviparous animals, there are no remains in the uterus either of the semen of the male or female emitted in the act, nothing produced by any mixture of these two fluids, as medical writers maintain, nothing of the menstrual

blood present as 'matter' in the way Aristotle will have it; in a word, that there is not necessarily even a trace of the conception to be seen immediately after a fruitful union of the sexes. It is not true, consequently, that in a prolific connexion there must be any prepared matter in the uterus which the semen masculinum, acting as a coagulating agent, should congeal, concoct, and fashion, or bring into a positive generative act, or by drying its outer surface, include in membranes. Nothing certainly is to be seen within the uterus of the doe for a great number of days, namely, from the middle of September up to the 12th of November."

"It appears, moreover, that all females do not shed seminal fluid into the uterus during intercourse; that there is no trace either of seminal fluid or menstrual blood in the uterus of the hind or doe, and many other viviparous animals. But as to what it is which is shed by women of warmer temperament no less than by men during intercourse, accompanied with failure of the powers and voluptuous sensations; whether it be necessary to fecundation, whether it be semen and prolific, is discussed by us elsewhere."

Harvey's treatise on the generation of animals contained forty pages of descriptive matter, no illustrations, and many philosophical reflections and contradictory statements. According to Brooks, his aim was to show that there is no physical continuity between parent and child and that fertilization is due to some mysterious "incorporeal" thing or influence such as a vital spirit from the stars. To Harvey the hen egg was not the product of ovary or uterus but of a vital principle. Harvey thought that conception was produced in the uterus "as an iron touched by a magnet is endowed with its own powers," and there is ample justification for Huxley's statement that Harvey also believed in spontaneous or equivocal generation. However, Harvey conceived many things correctly, and maintained, contrary to Aristotle and his followers, that the heart is not the source of the blood because "its parenchyma or proper substance arises some little time after the blood, and is superadded to its pulsating vesicles." It is also well to recall that Harvey might have had other discoveries to his credit but for the loss of his notes and collections by mob violence. We can easily sympathize with him when he wrote:

"And whilst I speak of these matters, let gentle minds forgive me, if, recalling the irreparable injuries I have suffered, I here give vent to a sigh. This is the cause of my sorrow:—whilst in attendance on his majesty the king during our late troubles and more than civil wars, not only with the permission but by command of the Parliament, certain rapacious hands stripped not only my house of all its furniture, but what is subject of far greater regret with me, my enemies abstracted from my museum the fruits of many years of toil. Whence it has come to pass that many observations, particularly on the generation of insects, have perished, with detriment, I venture to say, to the republic of letters."

Had his collection been left him and had Harvey contented himself with observation and experiment and avoided what Willis rightly calls "wanderings in the labyrinth of the metaphysics of physiological science," his work on generation would be far more deserving. This biographer says he "did enough [speculating] to deter anyone from attempting to tread such barren ground again." However, the errors of Harvey were not always due to pure speculation, but to

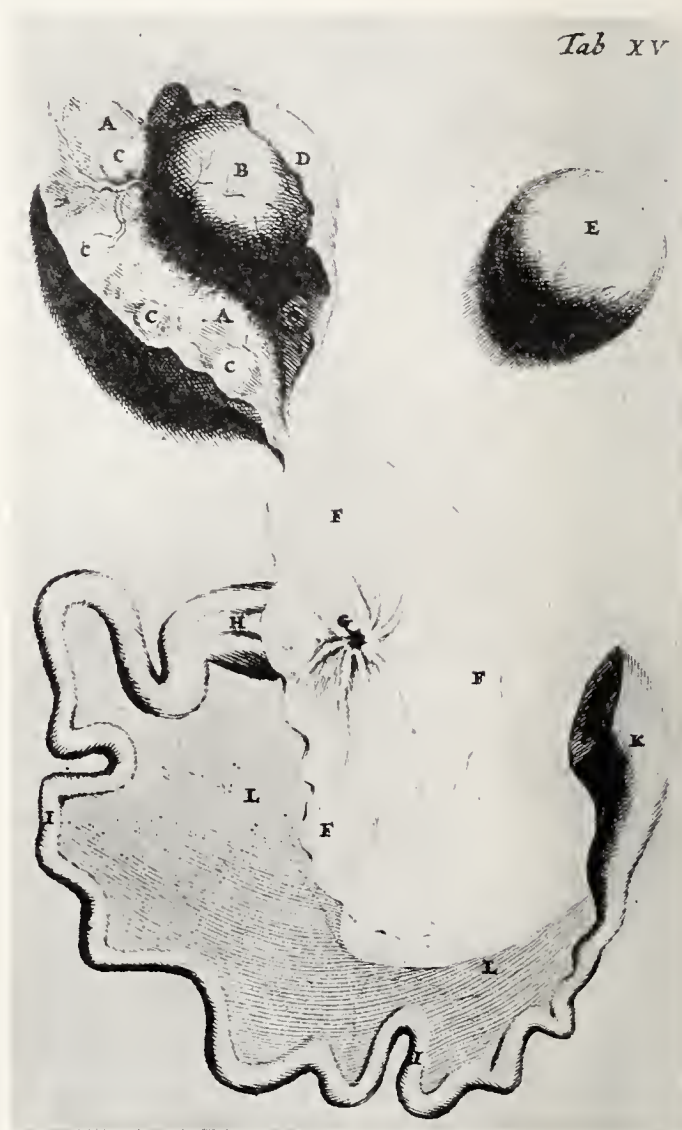


Fig. 2.—After Table 15 of de Graaf: A, a testiculus secundum longitudinem apertus; B, ovum maximum seu maturum in testiculo adhuc contentum; CC, ova minora seu immatura in testiculo haerentia; DD, membrana testiculorum dartos appellata; E, ovum maximum e testiculo exemptum; F, tuba fallopianae membranosa expansio; G, foramen coarctatum in tubae extremitate existens; H, tubae fallopianae extremitas; II, tubae pars reliqua; K, cornu uterini pars abscissa; L, tubae ligamentum in hominibus alis vespertilionum assimilatum.

faulty or inadequate observation, as the following quotation shows:

"In the deer as well as in the sheep, goat, and bisulcate animals generally, we find testicles; but these are mere little glands which rather correspond in their proportions to the prostate or mesenteric glands, the use of which is to establish divarications for the veins, and to store up a fluid for lubricating the parts, than for secreting semen, concocting it into fecundity, and shedding it at the time of intercourse. I am myself especially moved to adopt this opinion, as well by numerous reasons which will be adduced elsewhere, as by the fact that in the rutting season, when the testes of the buck and hart enlarge and are replete with semen, and the cornua of the uterus of the hind and doe are greatly changed, the female testicles, as they are called, whether they be examined before or after intercourse, neither swell nor vary from their usual condition; they show no trace of being of the slightest use either in the business of intercourse or in that of generation."

HIGHMORE A CONTEMPORARY OF HARVEY'S

In the same year that Harvey's treatise on generation appeared a considerably younger countryman of his, Nathaniel Highmore, also published one on the same subject. Highmore contradicted some of Harvey's ideas and insisted that

male sperm actually gets into the uterus and that sperm is not evaporated, as Harvey claimed, and incorporated into the body of the womb or into a more internal part and then redistilled into the womb again after a period of six weeks. He surmised that in the does or hinds in the womb of which Harvey found nothing before six weeks probably were barren. He emphasized that Harvey's idea in this matter was like that of Fabricius, who thought that "an irradiating influence fecundates the Hen and makes fruitful all the eggs that shall for a long time after be produced, without any admixture of seed at all." He says that Fabricius believed this because he found the mouth of the womb so small and because the cock had no intromittent organ.

Highmore insisted that only the womb was big enough to hold so large a quantity of sperm as is usually ejaculated, and continued:

"We shall find the material parts of the Male copied out to the life in the Fetus; even his marks, which never came under his sight or knowledge per-adventure, to be branded on the young one; we must needs acknowledge something more than irradiation, or fecundating qualities, impressed on the womb by the Masculine seed; and more than phansie in the Females to produce such effects. A Hen trod by a Pheasant, though in a dark room that so she could never see his proportions or color, brings forth Chickens resembling both herself and the Pheasant. A Bitch lined with several kinds of Dogs, though in the dark, when her phansie could not operate to the assimilating of her births, brings forth her whelps fashioned and colored like to all those she coupled with. The Horse leaves some material impression of himself, on the Mule, which she begets on the Asse."

Highmore also controverted the idea of Fabricius that the cicatricula is a scar left by "breaking of the footstock, by which it was fastened to the Hen," and added, "Parisanus thought it the seed of the cock, but I think it to be the seminal Atomes derived from both" the cock and hen for it is already present "when the eggs are but small little grains contained in the Egg-bag or Vitellary."

Highmore's treatise contains a number of illustrations on the early development of the chick and of plants and also an essay on Sir Gilbert Talbot's powder of sympathy in the efficacy of which he fully believed. He stated his conceptions of generation of animals as follows:

"The first rank of Animals rises from corruption of other creatures (Eeles from Mud; Flies and Worms from Beasts; the Sarabeus from Oxen; Lice from the filth of most Creatures)."

This, to be sure, is a plain recognition of spontaneous generation such as is found in Harvey, and Highmore also holds that perfect animals do not arise in this way, but from ". . . Atomes by the testicles of both, thrown into the Matrix of the Female." He insisted that both sexes must share in procreation because one of them must supply the rôle of the earth in regard to the seed, thus recurring to a very ancient concept. According to Cole, Highmore's idea of generation lies between pangensis and preformation, but preformation without emboiment and constituted by an orderly prearrangement of seminal atomes.

Shortly after the appearance of Harvey's book another contemporary of his, Joseph Needham, published a work also on the topic "De Formate Foetu," which contained illustrations of mammalian embryos, but a far more substantial advance in embryology was made by the more detailed and comprehensive observations of Marcello Malpighi. His studies were accompanied by many illustrations of great merit. It is interesting that Harvey's treatise on the circulation was published in Frankfurt in 1628, and that on generation in London and Amsterdam in 1651, while Malpighi's was published by the Royal Society of London in 1672. The first of Malpighi's contributions was entitled "De Formatione Pulli in Ovo," and the second, "De Ovo Incubato."

HEART ILLUSTRATIONS IN MALPIGHI'S TREATISE

Malpighi's treatise contained twenty figures on the development of the heart alone. He recognized a difference in size of the cicatricula in the fertilized and unfertilized egg and, although they are very transient structures in the development of the vascular system, he saw and pictured the aortic arches. He further represented the neural groove, the head fold and the optic and cerebral vesicles, but contrary to the correct view of Harvey, Malpighi believed that some parts of the completed body preëxist in the ovum and that others form during the course of development. However, in spite of this, Malpighi's services to embryology were considerable, and it is significant that Sir Michael Foster generously regarded him rather than Harvey, as the founder of embryology. Cole also speaks of Malpighi's "masterly analysis of the organogeny of the chick."

Malpighi used a self-made microscope instead of a magnifying glass even in his young manhood, and had a great advantage over Harvey, who did his work with a poorer instrument, but, according to Cole, not in the later years of his life. Harvey's work on the circulation appeared the year Malpighi was born.

Stanford University.

(To Be Continued)

CLINICAL NOTES AND CASE REPORTS

UPPER ABDOMINAL WOUNDS—ON METHODS OF RETRACTION

By O. O. WITHERBEE, M. D.
Los Angeles

THE success of surgical procedures depends in large measure on the facilities with which the tissues are brought under control. The accompanying illustration will at once appeal to the surgeon as depicting a practical point in gall-bladder and colon work. Satisfactory exposure, without undue manipulation of the upper abdominal structures, is essential if we wish to accomplish our work with the least trauma and with minimum shock to our patient.

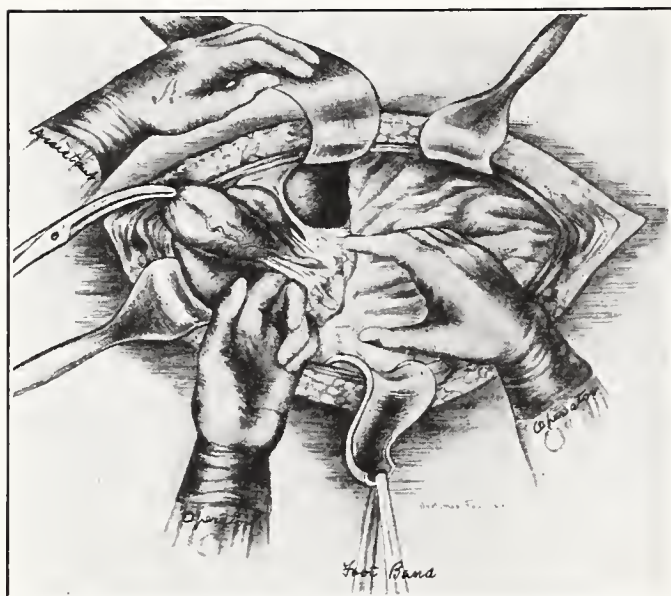


Fig. 1.—Showing manner in which foot retraction is used. (The retractor which is managed by the foot is shown in the center of the cut, being the retractor with the band of gauze.)

Surgeons whose work dates back through the years will remember with what difficulty the deeper structures in the epigastrium were formerly exposed. It seemed quite essential that the liver be forcibly lifted from its bed and held in the hands of a cumbersome assistant while the operator sought to expose the bile ducts and head of the pancreas. Often a pronounced suction sound became audible to all present as the liver was dragged outward from its bed, thus exposing the diaphragm and adding insult to injury, which too often proved an important factor in promoting pleural complications. It is true that the experienced surgeon of today, by making larger incisions, has ceased to disturb the liver in this way, but the ever present assistant, with bulky proportions, is still at his elbow trying as best he can to suitably retract the wound and not obscure the vision.

Several years ago the writer, being short one assistant, found it necessary to play a double part and do his own retracting. To accomplish this the center blade of a Balfour retractor was pressed into service and by means of a rope hurriedly improvised through the use of strips of sterile gauze the left foot was brought into most effective service. Much to my surprise the liver seemed to fairly lift into the wound. This was due to no disturbance of the organ but to the fact that I, with no conscious exertion, both retracted and very materially lowered the outer margin of the incision, quite the opposite to what can be accomplished by an assistant.

This also proved much superior to what can be accomplished by the spreading of the Balfour blades which exert equal pressure in both directions and with much greater trauma to the muscles and peritoneum. No pronounced retraction is necessary on the mesial edge of wound and if none is exerted, then the outer edge can be carried much farther and much lower than would otherwise be possible.

The accompanying illustration does not sufficiently stress the point, and the assistant's hands do not correctly portray the positions they should occupy. A single assistant standing opposite with one or two Deaver retractors will easily accomplish all that may be desired in such capacity.

3780 Wilshire Boulevard.

NONUNION OF TIBIA: AN UNUSUAL CASE*

REPORT OF CASE

By ALFRED E. GALLANT, M. D.
Los Angeles

THE problem which I wish to present has many interesting angles, namely: (1) the persistence of nonunion after several surgical attempts at bone repair during the course of seven years; (2) speculation as to the cause of the persistence of this nonunion; (3) the final decision as to the method of treatment; (4) the end result with union.

REPORT OF CASE

The patient was first seen at one of the clinics of the Los Angeles County Health Department, where she appeared with a complaint of having had a fractured leg, while living in an eastern city, in June, 1923. The original injuries were fractures of the tibia and fibula, and there was a pseudarthrosis, with an outward and backward bowing of the tibia in the lower third, as shown by our radiographs. She was transferred to my service at the Los Angeles General Hospital for treatment.

The following facts were taken from her history: "Case No. 97705, Nellie T., a white female, age forty. Complaint: Old fracture of right leg. Patient had a compound fracture, right leg, seven years ago; both tibia and fibula were fractured. Tibia healed well; fibula was plated one month later, and patient did not have function of the leg." (I am inclined to think that the words "tibia" and "fibula" in the history were transposed, and the record should have read "tibia was plated, etc." The radiographs taken at the time of her admission to the Los Angeles General Hospital, and at the County Health Center, contra-

* Read before the General Surgery Section of the California Medical Association at the sixtieth annual session at San Francisco, April 27-30, 1931.

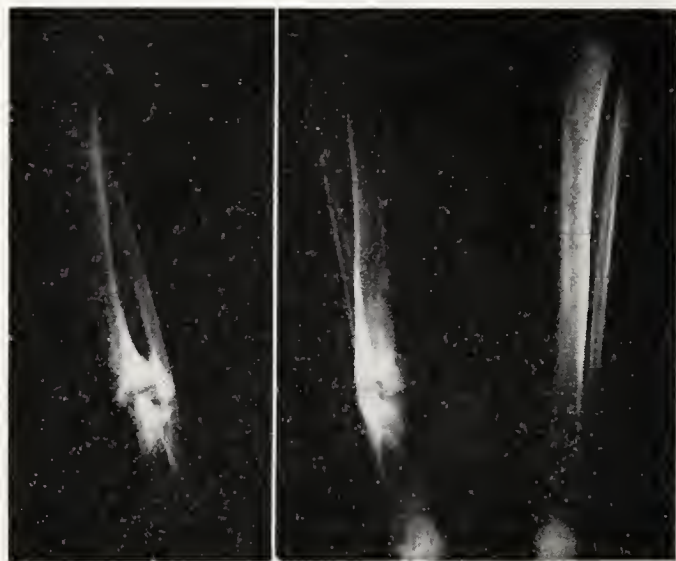


Fig. 1.—Preoperative, showing relative lengths of abnormal tibia as compared with the normal. Lateral view gives a very good idea of the amount of pseudoarthrosis present.

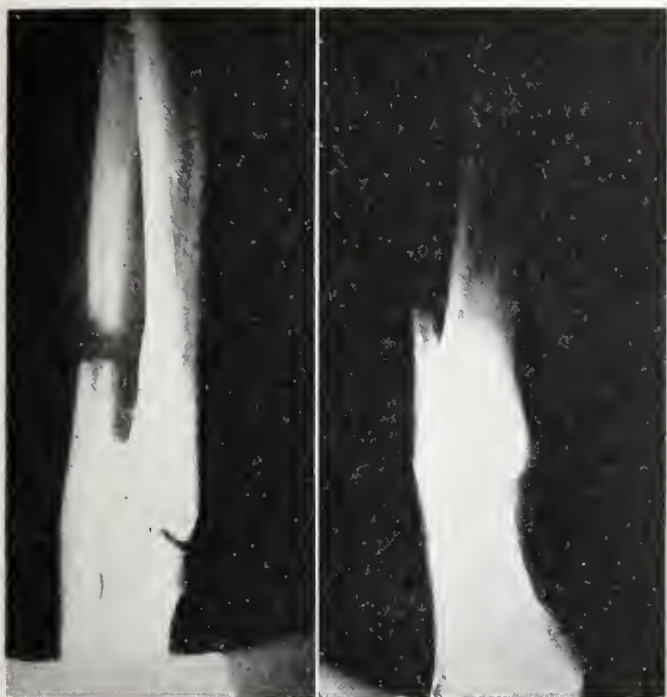


Fig. 2.—Nine weeks postoperative, showing progressive repair of callus.

dict the wording of the history in this respect.) "An infection followed this plating operation. Patient was next operated upon in a Chicago hospital, and told that nerves had been severed. Three years ago a bone-grafting operation on the tibia was done in Kansas City by a competent orthopedist, and she has worn a brace continuously since this last attempt at repair."

According to her statement there were, altogether, eight operations on this leg, and mine made the ninth. About two weeks before entering the Los Angeles General Hospital she "bumped" her leg on a street car, and it had been swollen and painful since. Pain in the leg was relieved by nonweight bearing, although patient could walk with the aid of a brace. Physical examination failed to show any gross abnormality, except surgical scars on the right tibia and a pseudo-arthritis in that bone in the lower third. There were no evidences of infection or inflammatory reactions in the lower third of the tibial shaft. All laboratory data was negative, including the Wassermann. Further radiographs were taken at the Los Angeles General Hospital, and these will be shown in the lantern demonstration.

SPECULATION AS TO THE CAUSE OF PERSISTENT NONUNION

The probable causes for the persistent nonunion are: first, a compound fracture with infection and subsequent drainage; second, repeated attempts at eradication of osteomyelitis, which either followed the compound fracture or the plating; third, an infection, probably following the bone-grafting operation; fourth, a failure of the bone graft to take, with a resultant pseudo-arthritis; and fifth, improper splintage somewhere along the line, causing pseudo-arthritis. The persistent use of the brace following the bone-graft operation bears out the speculation that the bone graft failed.

DETERMINATION AS TO TYPE OF TREATMENT

Discussion between myself, my juniors on the service, and the house staff brought out several proposed methods of treatment, and the consensus of opinion was in favor of another bone-grafting operation, either by massive graft, or onlays. However, when it was pointed out that there was considerable scar tissue on the anterior surface of the tibia, with the possibility of faulty healing of the skin, and also because of the fact that the fibula was probably an offending agent in this problem, it was decided to remove a small portion of the fibula, above the level of the tibial lesion, and depend for eventual union on the aid of muscular contractures and weight bearing in a plaster paris bandage. Accordingly an operation was performed on March 3, 1930, under spinal anesthesia, as follows: Picric acid preparation from toes to mid-thigh. Through a six-inch incision over the lateral surface of the leg the shaft of the fibula was exposed subperiosteally at a level above the pseudarthrosis in the tibia. A piece of bone about an inch long was removed. Muscles were laid back in place and the skin was sutured with plain catgut. The incision was treated again with picric acid and a sterile dressing applied, followed by the application of a modified Delbet plaster paris bandage, including the foot and leg, to groin. Postoperative course was uneventful. Patient was allowed to bear weight on this leg seven days after operation.

CONCLUSION

If the usual method of treating a nonunion of the tibia had been followed, either by a bone graft after the method of Albee or Phemister or by



Fig. 3.—Eleven months postoperative, showing firm union, with practically an obliteration of all evidences of pseudo-arthritis.

onlays, it would have been necessary to freshen the ends of the fragments of the tibia at the site of the pseudarthrosis, with a consequent loss of bone substance. A bone graft did not offer us much promise in view of the fact that there had been a multiplicity of operations on this bone with resultant failure. Therefore it was reasonable to remove a piece of the fibula and consider the tibial fracture as of recent origin, and to allow weight bearing, as is a common practice nowadays. The result proves that the idea of resection of a portion of the fibula was a reasonable procedure, and is more or less unique because I have not been able to find reference to this particular type of method except in Hey Groves' ¹ textbook, under the title of "Modern Treatment of Fractures." It also proves that, under like circumstances, bone repair will take place if given an opportunity, as happened in this instance. Lastly, it probably opens up a new field of thought in cases of nonunion of tibia, especially where a bad result had followed previous surgical interference.

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REFERENCE

1. Groves, Ernest W. Hey: Modern Methods of Treating Fractures, second edition, page 371.

Financing Physicians', Hospital and Dental Bills at the Normal Rate of Interest.—The *International Journal of Medicine and Surgery*, November 1931, under the caption, "Medical Financing—An Urgent Need," has a very timely editorial, we quote:

"In this period of depression, perhaps the most difficult economic problem facing the medical profession is the matter of being paid for services rendered. Even in prosperous times, the doctor is the last to be paid. He can wait.

"This particular problem bears no direct relationship to any of the other problems that confront the doctor. Pay clinics, dispensaries, medical centers, open and closed hospitals, group practice—all of these, as the lawyers would say, are immaterial and irrelevant and secondary to the immediate problem of being paid for work done and services rendered. Simply stated, services have been engaged and rendered; the patient finds himself unable to pay at once because of the depression. The doctor is left holding the bag, and he may hold it for many, many months, possibly years.

"What can he do? He must live and pay for what he requires. He gets nothing for nothing. If he were a merchant, he could take his patient's note to his bank, and have it discounted. The patient would have a welcome extension of time and the doctor would get his money less the usual interest charge. But the doctor is not a merchant. Being a professional man, he has no mercantile rating. He has no line of credit in his bank and cannot borrow except upon the deposit of gilt-edged collateral. The storekeeper on the corner can borrow because he carries a stock of merchandise, which means 'tangible assets' to the banker. The doctor having merely knowledge, experience and personal integrity—all intangible assets, has no rating. Here, indeed, is a real doctor's dilemma.

"The solution of this dilemma seems on the way through the development and popularizing of methods of medical financing. By this means the doctor is paid without delay and the patient pays his indebtedness in small installments to the financing concern. There is no analogy between this idea and the high-pressure installment selling of recent years. No one is urged to buy and buy and buy medical services and pay out of earnings. We are not selling radios or refrigerators or automobiles. We have nothing to sell but our services and the need for these services

usually falls out of a clear sky upon all human beings at one time or another. Illness is never invited; it is forced upon us. Like taxes, it is inevitable. But the cost must be reckoned with. Fortunate, indeed, is the man whose means are such that he can meet the call when it comes to him.

"To those who cannot meet this call, medical financing must be a great boon. We cannot think of a greater service both to the patient and his doctor than the development of some practical plan whereby payment for medical services can be made easier for the patient and more prompt and certain for the doctor. It is the most urgent need of the public today. We see no reason why the doctor should be compelled to wait months and even years for his compensation while he suffers privation as the result of this practice. It is of mutual advantage for the payment to be made less difficult for the patient and more quickly to the doctor. The self-respect and well-being of both parties is thereby enhanced beyond computation.

"The particular plan to be adopted is a subject for considerable study and thought. It must have proper backing and support. Any plan that savors of a 'racket' and exploits the patient or the doctor or both, must be denounced as a menace and eliminated from consideration. On the other hand, medical men should seek to develop and encourage a plan of financing which will stand up against the most careful scrutiny. Such a plan must have the support of conservative banking interests and must be managed by men of unquestioned character and probity. If such a plan can be developed, it will do more than anything else to establish the essential cordiality of economic relationship which must exist between patient and doctor. Both the lay public and the medical profession will have cause to be grateful if such a plan can be developed. We can only express the hope that its consummation will not be long delayed."

NOTE: That the scheme is feasible is shown by the experience of the National City Bank of New York.

Three years ago the rich National City Bank of New York opened up a department for loans without collateral security to working folks who needed a hundred or a thousand dollars and needed it badly.

After a year, however, during which the National City Bank loaned over \$16,000,000 in such loans, a report was made which shows the borrowers met their obligations promptly. The experience of the bank helps support the general conviction that most folks are honest. Most men and women take pride in making their word as good as their bond.

This great bank helped in one year more than 50,000 New York families by its small loan policy. It helped a man finance a surgical operation for his son. It provided a waitress with enough money to bring her brother to this country from Germany. It freed many wage-earners from the toils of the loan sharks. A third of the loans were for medical and dental service; 15 per cent to pay debts and other loans; 14 per cent went for home equipment, and 8 per cent for payments on homes; education took 5 per cent. The repayment plan, calling for regular savings accounts deposited from wages, was promptly followed by 90 per cent of the borrowers and legal actions had to be instituted for the recovery of less than 1 per cent of the total loans.—*Illinois Medical Journal*.

Silence—A Powerful Weapon.—Respect your colleagues. Know that there is no more high-minded body of men than the medical profession. Do not judge your confrères by the reports of patients, well meaning, perhaps, but often strangely and sadly misrepresenting. Never let your tongue say a slighting word of a colleague. It is not for you to judge. Let not your ear hear the sound of your voice raised in unkind criticism or ridicule or condemnation of a brother physician. If you do, you can never again meet that man face to face. Wait. Try to believe the best. Time will generally show that the words you might have spoken would have been unjust, would have injured a good man, and lost you a friend, and then—silence is a powerful weapon.—*The Johns Hopkins Hospital Bulletin*, Vol. 3, 198-200. 1919.

BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussion invited.

THE RIDDLE OF PSORIASIS

ERNEST DWIGHT CHIPMAN, M. D. (350 Post Street, San Francisco).—Practically every article dealing with the subject of psoriasis states properly at the outset that the cause of the disease is unknown. One may still mention, however, certain statistical generalities and discuss the various theories which have been suggested as possible answers to the riddle of psoriasis.

In general we find that the disease usually begins in the early decades of life; that it is found in all countries though oftener in the colder ones; that males are more frequently affected than females; that the robust are attacked as freely as the feeble; that in a certain percentage of cases there is a definite familial predisposition to the disease.

The theories concerning the nature of psoriasis may be divided into two groups according as they make of it a disease of external or of internal origin. The two chief external factors are (a) parasitism and (b) congenital malformation of the epidermis. The internal possibilities include (a) blood changes, (b) nerve influences, (c) metabolic disturbances, and (d) focal infection.

Concerning the theory of direct parasitic action there is a lack of satisfying reports. Various organisms have been found but none constantly and none capable of reproducing the disease. Some cases of vaccinal psoriasis have been reported. Almost never has psoriasis been noted in both husband and wife while it has frequently been seen in brothers and sisters. This latter would, of course, be an argument in favor of familial influence.

It is possible to consider psoriasis as the indirect result of parasitism. Erasmus Wilson believed it to be the expression of an attenuated syphilis. Latent tuberculosis has also been accused.

The notion that psoriasis is the result of congenital malformation is somewhat favored by the fact that it sometimes follows slight irritations such as tattooing.

When we come to the question of possible internal causes we hear much of dyscrasias. The French School, which has from time immemorial favored the idea of humoral influence, diathesis and generally disturbed conditions of the bodily fluids, would naturally be expected to lean heavily to this side of the argument. Yet Audry states: "From the examination of blood we can conclude absolutely nothing; the changes that have been observed are so slight, so fugacious and so inconstant that they have not the least bit of real value."

The most pretentious investigation in recent years was made by Schamberg and associates along the line of nitrogen retention. Their results seemed to indicate that while a high protein intake does not cause the disease, nor a restricted protein intake cure the disease, the scale formation in established cases varies in direct proportion with the protein ingested.

One of the most significant circumstances seeming to point toward an internal disorder in the etiology is the coincidence of arthritis and psoriasis. This has been so often noted that, in the days when the uric acid diathesis was a favorite refuge, the salicylates were often invoked in treatment, some writers reporting good results. Reasoning by analogy, one might suppose that now, when focal infection is conceded to be the cause of many arthritides, we would find it also to be the source of psoriasis. Unfortunately such hope is vain. In an extensive tabulation of the incidence of focal infections in psoriasis I have found the percentage less than in any of the dermatoses studied.

The rôle played by the nervous system may be manifested by the appearance of lesions following fright, shock or emotional stress. Ravogli believes that psoriasis is of nervous origin and that the nerve changes are the result of an extinguished syphilis.

Polotebnoff considers psoriasis as one of the multiple symptoms of a vasomotor neurosis. The neuropathic hypothesis has many adherents, some believing that psoriasis is due to inherited weakness of the nerve centers that regulate the nutrition of the skin. The success of arsenic therapy in certain cases may lend support to such a view.

In conclusion one may state with some confidence that psoriasis is a familial disease, but that the subject who is born with the tendency to it needs some exciting cause which may come from within or without. From this it would appear that the cause is not uniform but that multiple causes determine it in the predisposed.

To quote once more from Audry: "Not one of the theories enumerated is entirely true; all, or nearly all, seem to conform to that old law that in all affirmation a part is true and that only negation can be completely wrong."

* * *

C. RAY LOUNSBERRY, M. D. (233 A Street, San Diego).—No subject could be of more interest than that which deals with the treatment of psoriasis. Needless to say, the diagnosis of any

disease must first be made before the logical treatment is instituted, and in psoriasis we have a disease which usually is easily differentiated from other scaly chronic dermatoses. Therefore, we may pay special attention to the treatment which is aptly described as a "riddle."

The treatment of psoriasis should be similar to that which governs the treatment of any other disease which may attack any organ of the body. If the etiologic factors are known, we can then treat the disease more easily. In the treatment of psoriasis we should study the patient's general health, his environment and relation of the condition to the general systems of the body. Especial consideration should be made of the nervous and gastro-intestinal systems. Cases have been reported in which the underlying cause of the disease was found in the gastro-intestinal tract, and which, when treated, promptly brought about a disappearance of all symptoms. Thus we see that there is a systemic factor to be considered. The systemic phases of the disease have been treated by various methods of internal and external medication. The internal methods, which have always been more or less palliative, have been multitudinous, indicating how difficult this condition is to cure permanently. Patients have been reported who showed relief for ten years, but in whom, after moving to another climate or when treatment was stopped, the disease again became evident.

The accepted methods of treatment have been many, and all of them have produced more or less beneficial results upon certain selected cases. Treatment should be pointed toward the correction of any abnormalities which may be noted in the general body economy. Derangements in the general health emphasize a careful examination of the nervous system, because many investigators have maintained that there is a close relationship between a deranged nervous system and psoriasis. Fitch, in his textbook on diet-therapy, maintains that a heavy protein diet is an important factor in the causation of the symptoms of this disease. He eliminates all foodstuffs which might irritate the skin, such as shell foods, strawberries, highly seasoned foods, and practically all meats—especially the red meats—pickles, cheese, coffee, tea, alcohol, and places his patients on a low protein diet.

Many other systemic methods have been used as sodium salicylate (true), iron, arsenic, gold sodium thiosulphate, foreign protein therapy, each with more or less good results in some cases. Because the blood picture in psoriasis many times will show a low calcium index, calcium therapy has been instituted. Hedge, of Chicago, did a very fine piece of work which has caused us to think along the line of blood chemistry and its relationship to diseases of the skin. He also is an exponent of a low-protein diet for such cases.

1. "Archives of Dermatology and Syphilology," September 1931, page 446.

Others have worked upon the theory of internal secretory causes, treating their patients with glandular extracts such as parathyroid, thyroid and mixed glandular elements. Some men have found that a group of cases of psoriasis may have gastric disturbances, and because a low acid content has been shown to be present, hydrochloric acid therapy has been instituted.

The systemic treatment may aid in the clearing up of a difficult case, but the main dependence should be based upon external therapy. It is possible that if we could place our patients in the tropics we would get wonderful results. What the psoriatic skin needs is moisture and the intense heat which comes from tropical sunshine. I saw very few cases of psoriasis in Haiti and Santo Domingo. Those patients who have been in Panama say that as soon as they get into that hot, humid zone they miraculously clear up. The sunshine treatment can be aided by the old standby chrysarobin ointment, salicylic acid ointment, ammoniated mercury ointment, or oil of cade. Pyrogallol acid, trichloroacetic, phenol, salicylic acid and alcohol, salol and alcohol, neorobin, tar, in various strengths have been used with combinations of the above. Hot antiseptic baths, using tincture of green soap, followed by ointments at times give good results. Boric acid, aluminum acetate, potassium permanganate, lysol, phenol, bichlorid of mercury, and many other types of baths are of service in soaking off the scales, after which ointments are used.

The ultra-violet ray and tar technique as worked out by Goeckerman¹ may also be tried in combination with the above. Different men have done some work on the intramuscular treatment of psoriasis which represents the grinding of the scales from a psoriatic lesion, dissolving them in alcohol and injecting them intramuscularly. They report good results, but this type of therapy is in its infancy and no conclusion can be drawn as yet to its efficacy. Other forms of treatment such as fractional doses of x-ray, x-ray combined with local therapy, x-ray combined with quartz, carbon-dioxid, grenz rays, radium and carbon arcs have all been used. All of these various methods have produced good results in selected cases.

* * *

MOSES SCHOLTZ, M. D. (1930 Wilshire Boulevard, Los Angeles).—Among various dermatoses psoriasis occupies a rather unique position. It is one of the oldest known skin diseases and the most widespread. Yet in spite of the tremendous amount of research nothing definite is known or proven in regard to its etiology. It is as baffling and resistant to the best therapeutic efforts as ever before.

In view of the absence of the specific and causative therapy the best that can be promised or expected is the symptomatic control of the lesion. It must be conceded, though, that the modern

therapeutic technic allows a much greater range of therapeutic control and is productive of more lasting results.

The time honored treatment of psoriasis is limited to a few therapeutic measures routinely used with partial and inadequate results. These are: chrysarobin ointment, arsenic in drops or pills, sunlight, ultra-violet ray and x-ray.

Each of these agencies, if used on properly and carefully considered indications and in proper dosage, may be beneficial. But their commonly observed indiscriminate and haphazard use in excessive dosage and over unduly prolonged periods of time lead often to untoward and occasionally serious injuries to the skin. Acute chrysarobin dermatitis, blistering and intense erythemata from ultra-violet light, arsenical keratoses and pigmentations, and x-ray burns of various degrees are seen only too often.

Chrysarobin is very seldom used at present in psoriasis. Its disagreeable staining and irritating properties render its use permissible and advisable only in cases with a few sluggish circumscribed lesions.

The efficiency of arsenic administered orally in psoriasis is uncertain and casual only. Arsenic is distinctly contraindicated in acute and subacute cases which it often aggravates. The common practice of giving arsenic drops or pills to the limit point of physiologic saturation is, in my opinion, decidedly objectionable. This arsenic saturation of the system is unnecessary and it does not increase the therapeutic efficiency. I much prefer a more sustained effect of medium doses of Fowler's solution of three to six drops in gradually increasing doses kept up for from six to eight weeks, or in hypodermic or intramuscular administration, the latter in combination with mercury in the form of enesol as introduced by Sabouraud.

Instead of arsenic in acute and generalized cases, I find very serviceable potassium iodid in small doses of five to ten drops, three times a day. As a general principle, in acute cases no irritating medication, of either systemic or local nature, should be given. In subacute generalized cases, suberythematous doses of quartz lamp or carbon arc are well indicated and helpful.

In chronic thick infiltrated circumscribed patches ultra-violet ray is ineffective. These patients should be treated with x-ray or radium (if the patches are small). Again a warning should be sounded not to depend on x-ray exclusively in generalized cases and not to repeat radiation in recurrent lesions indefinitely, as is often requested by the patients. X-ray dosage varies from one-quarter to three-quarters of a skin unit. Filtration is hardly necessary.

In lesions on the scalp an extreme caution must be exercised in gauging the size and number of x-ray radiations (never exceeding a quarter of a unit per treatment) because of the danger of producing a permanent epilation. A great therapeutic

advance in obtaining superficial actinic effect has been supplied by the recently introduced new actinic modality of the grenz ray. Grenz ray is an extremely low voltage x-ray modality which differs from the ordinary x-ray by the extreme superficiality of its action and to this degree is safer. It is practically incapable of producing an epilation.

In my experience, grenz ray proved to be definitely the best method to control psoriatic lesions of the scalp. For the same reason grenz ray is much to be preferred in psoriatic lesions of the parts covering radiosensitive organs, such as eyes, breasts, and testicles.

Nonspecific protein therapy has proven empirically useful in chronic types of psoriasis and is used in various forms. The most common include the following: Hemotherapy, a withdrawal of the venous blood and reinjection of the whole blood or serum intramuscularly in gradually increasing dosage from 5 cubic centimeters to 20 cubic centimeters; milk injections, 2 cubic centimeters intramuscularly, cautiously spaced. Also paratyphoid bacilli from a minimal dose up to a dose producing febrile systemic reactions.

One of the latest ideas of the nonspecific proteid therapy is the injection of the alcoholic solution of psoriatic scales. The results are not certain and temporary. Yet the method is of value as an additional weapon for the symptomatic control of psoriasis.

The recent useful additions to our therapeutic armamentarium are gold sodium thiosulphate and sodium thiosulphate. Gold sodium thiosulphate has proven near specific in lupus erythematosus. Its action is not fully understood, but it has seemingly a detoxicating effect. Gold injections seem to exert a favorable effect as a supplementary measure to other therapeutics in psoriasis of small patchy type, particularly in young girls. The dosage is small, 15 to 30 milligrams, once or twice a week.

Sodium thiosulphate has, apparently, similar detoxicating effect. It is used intravenously three to four times a week in dosage .5 cubic centimeter to 1 cubic centimeter. This therapy is more suitable for subacute generalized cases.

Dietetic treatment, specifically, the proteid restriction, seems to be of clinical value in acute and subacute generalized cases. In chronic cases with infiltrated circumscribed patches it has no effect.

Speaking generally, the best prognosis can be offered to patients with acute generalized psoriasis and to patients with a few circumscribed patches.

In conclusion, a statement of axiomatic obviousness, but commonly ignored in practice, must be repeated and reemphasized; the cases of psoriasis should not be treated routinely, but individualized according to the morphologic type of the lesions, the stage, the distribution, and the type of patient.

California and Western Medicine

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Contributions—Exclusive Publication.—Articles are accepted for publication on condition that they are contributed solely to this journal.

Leaflet Regarding Rules of Publication.—California and Western Medicine has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this journal write to its office requesting a copy of this leaflet.

EDITORIALS*

HEALTH INSURANCE SOCIETIES OF CUBA —PSEUDO STATE MEDICINE AND WITH A VENGEANCE

Present Unhappy Condition of Medical Practice in Cuba.—During the recent holidays, in a visit to Cuba, the editor of CALIFORNIA AND WESTERN MEDICINE was much impressed by the somewhat unhappy problems which were confronting the medical profession of that island neighbor of the United States. The unfortunate situation which exists in Cuba is not due to poor organization of the medical profession, for in Cuba, with its three million inhabitants, practically every one of the three thousand physicians is a member of the Cuban Medical Federation (Federación Médica de Cuba). Nor are the problems complicated by cultist medicine, for Cuba has no cultist groups. As a matter of fact, the great majority of the physicians are graduates of the Medical School of the University of Havana, which school has given excellent courses of instruction.

Somewhat more than a year ago, by order of the Cuban governmental authorities, the University of Havana was closed, presumably because of the active part which students had been taking in insurrectionist movements. The closing of the

University has aroused very little indignation or adverse comment among members of the medical profession because Cuba at this time is supplied with physicians to more than amply answer its needs, especially under conditions now existing. Because of the present status of medical practice in Cuba, members of the profession complain with considerable feeling of the deplorable arrangements which take from them those economic rewards which are so important, if physicians and their families are to live and have the comforts that are necessary accessories for satisfactory and efficient practice of the healing art.

* * *

Astounding Development of Health Insurance Societies in Cuba.—From a somewhat hasty survey of the Cuban medical situation, the editor believes that in that island, and in particular, in its metropolis, Havana, there is a more intensive and extensive development of "health insurance societies" than can be found anywhere else in the world. This peculiar situation was called to the attention of the House of Delegates of the American Medical Association by Dr. J. M. Penichet when he attended the A. M. A. annual session of 1927 as representative of the Cuban Federation of Physicians (See *Journal American Medical Association*, June 11, 1927, page 1890). Dr. Penichet stated that: "Six hundred and sixty-six individuals out of a thousand belong to the great Spanish Health Societies. . . . This leaves 334 probable patients to each physician. Supposing 10 per cent of this number have need for medical services each of us has only thirty-four patients to depend upon."

* * *

Illuminating Paragraphs from Dr. Penichet's Address.—The following excerpt from his address is in harmony with what the editor learned during his conversations with medical men who are on the staffs of different hospitals, and this both in institutions supported by the government or by the "health societies." Quotation from the Cuban delegate's address follows:

"About fifty years ago the Spaniards, in order to protect their immigrants, established a type of society which in the beginning answered the purposes for which it was created: the medical attention of the laboring class. But right from the start the lay patrons took command of the board of directors and soon afterward they also joined in the privileges of their employees. In a very few years a number of other societies were founded, as many as there are provinces in Spain.

"For the small amount of two dollars a month any member is entitled to the services of a specialist, and in case that his condition should require hospitalization, he will have at his disposal the very best equipped hospitals in the country.

"Besides, he can get a certain form of preliminary instruction and his family may participate in the different courses in music, painting, and sculpture. If he is a sociable man, his club is ready to receive him and there he will find, among the luxuries of these magnificent buildings, every possible sort of entertainment. If he does not care to deal with our national or foreign banks, he has a bank of his own. If he goes to moving pictures or to the theatre, he has every opportunity in the world to please himself.

* Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Medicine Today column, which follows.

"This would be an ideal conception for the laboring class; but the rich, the very rich, belong just as well to these societies. The highest representatives of the banking business, commerce, industry, government, and politics are the principal associates of these institutions.

"And it may surprise you to know that all the money to support all this comes out of their hospitals. Cuban physicians work day and night; they very seldom take a vacation—perhaps just a few of the lucky ones may do so—and the salaries they get are something ridiculous. That is why we have founded the Cuban Federation of Physicians, to fight against these powerful trusts and free the medical profession. We have had already two strikes which we have lost, but we keep on fighting for the justice of our cause."

* * *

The "Centro Asturiano," the oldest of the Cuban Health Clubs.—There are about a score of these health societies, one of the strongest being that known as the "Centro Asturiano de la Habana." It was founded on May 2, 1886, and carries more than 60,000 members on its rolls. Its hospital department is constructed on the pavilion system with buildings for the different specialties, laboratories and for administration, and all housed in a beautiful and expansive park.

So also as regards the next oldest and largest of these societies, and in lesser degree the others. The youngest of the organizations was also visited and although only about two years old, it has some 20,000 members, and in addition to its central city office, has its hospital department in an old Havana mansion in one of the suburbs, with very good working facilities.

* * *

The Club House or Palace of Asturias.—The oldest of the hospital associations—Centro Asturiano—has also erected the "Palace of Asturias" opposite the central park of Havana. This structure, built at an estimated cost of \$5,000,000, is as handsome as many European palaces. So ornate is this building that its photograph is seen wherever postcards are displayed. The following legend is printed on the postcards:

"This beautiful palace, of white stone, rich marbles, and irons, has recently been erected by the efforts of 61,000 associates, who, for the small payment of \$2 monthly, enjoy the splendid sanatorium, clubhouse, school, library, gymnasium, ballrooms, amusements, etc. The furniture in the Spanish renaissance style, like the facade, is splendid. The canteen is wonderful and the dance hall immense. The entire building is artistically ornamented."

In the Miscellany department of this number are reproduced some halftones of this building. These illustrations should provoke suggestive thought to American physicians who have an interest on trends in social or health insurance, medicine. (For illustrations and also for the code of ethics of the Cuban Federation see this issue of CALIFORNIA AND WESTERN MEDICINE, pages 139 and 141.

* * *

Medical Profession is Fighting the Evil.—During the time the editor of CALIFORNIA AND WESTERN MEDICINE was in Havana, the Cuban Medical Federation (Federación Médica de Cuba)

was in session, holding on December 27 a "national assembly" in which the deplorable state of medical practice, largely caused by these "health societies," was made the subject of earnest discussion. The newspapers *El Pais* and *El Mundo* for several days gave first-page display articles to the transactions of the assembly. In essence, the delegates to the assembly were striving to secure for services rendered in the homes of members of the societies a tariff in harmony with industrial fee table rates, based somewhat on the income of the families. As regards hospital work, a separate salary tariff based on nature and degree of service was proposed. It was also resolved that free medical consultations should not be allowed except for declared indigents.

* * *

Why Should All This Be of Interest to California Physicians?—Some readers of CALIFORNIA AND WESTERN MEDICINE may be asking themselves why this portrayal of medical conditions in far away Cuba is being given space in these columns. To this query the editor can only state that, having in previous years observed the workings of governmental state medicine in Europe, such as the Krankenkassen of Germany and the dole system of England, and knowing how much has been written in the medical press about those systems, he was rather surprised that this tremendously well organized pseudo state medicine situation of Cuba should have received so little attention in the United States. Particularly so, since these "health insurance societies" of Cuba are altogether analogous to the organizations which are being promoted at this very time with so much persistence and vigor in different parts of the United States, and especially in our own state of California. These health insurance societies of Cuba, with their lay boards of directors, show conclusively what the medical profession may expect from such organizations at the end of ten, twenty, thirty and fifty years, if permitted to go on to development under what is practically lay administrative guidance.

As a result of what has taken place in Cuba, the members of the medical profession of that country are now fighting for existence. Their official medical publication, *La Tribuna Médica* (Ave de Maceo 15, Habana), in each issue tells of the phases of the battle now being waged. What has happened in Cuba can also take place in America, if members of the medical profession remain asleep or inactive when similar health insurance societies are being organized. Cuba may be said to be an excellent example as showing what may be in store for the medical profession of the United States, if interest and action are not maintained in the problems which are constantly arising as these new health insurance companies and societies are being formed in our own country. Californians need not go beyond the boundaries of their own State to find many examples of the evils which come into being with the formation of such organizations.

Here Is an Excellent Study Field for the American Medical Association Bureau of Economics.—Last year the California Medical Association sponsored the resolutions to our national association to have a Bureau of Medical Economics established. That department of the American Medical Association is now functioning. It would seem proper to suggest that the board of trustees of the American Medical Association might well appropriate the funds that would make possible a thorough investigation and report on these Cuban societies, so that constituent state associations such as California, might have such information for use in properly supervising within their own boundaries the development of similar organizations. We happen to know that the archives of the American Medical Association are practically barren of accurate or detailed information concerning these Cuban societies. This should not be. It is hoped that this paucity of facts will be remedied at an early day at our national headquarters in Chicago, and that the information collected will be given publicity in the *Journal of the American Medical Association* or in the *Bulletin of the American Medical Association*. As a concrete example of an unusual complex on some medical economic and practice problems, the Cuban experiences could be made to present an interesting and valuable story to the medical profession of America. Such a recital could be of greatest good and influence if presented through the press facilities of the American Medical Association.

CALIFORNIA'S STATE MEDICAL LIBRARY

State Medical Library Bill Struggle.—In the November CALIFORNIA AND WESTERN MEDICINE, page 383, mention was made of the difficulties which, through seeming flaws in its title, had been encountered by Assembly Bill 477, providing for a state medical library under the jurisdiction of the University of California.

It was there stated

"it is a pleasure to chronicle in this column that these new and unforeseen difficulties concerning the title have been surmounted, and that a *state medical library will be instituted in California*. This brief comment is here printed so that the members of the California Medical Association who have been watching with interest this new experiment in state library work may know that all is well and that in due time the state medical library will begin its work."

The above somewhat optimistic quotation demonstrates the advantages of a contrary pessimistic outlook, on the general principle that nothing is an accomplished fact until actually accomplished. In other words, it might have been wiser to have stated that the state medical library could not be absolutely assured until the money had been actually transferred from the jurisdiction of the Board of Medical Examiners of the State of California to that of the Regents of the University of California.

* * *

"Unencumbered" Moneys, the New Difficulty.—Strange as it may seem, after surmounting the difficulties as regards constitutionality because of

seeming flaws in the title of the bill, a new complication arose. This later difficulty hinged about the use of the term "unencumbered" moneys of the Board of Medical Examiners, words originally inserted into the text of the bill at the suggestion of members of the California department of finance. After the supposed title flaws had been surmounted, the contention was brought forward by some of the financial officers of the State that there were no "unencumbered" moneys in the funds of the Board of Medical Examiners. If such contention was sound, there would have been all legal authority to have instituted a state medical library, but there would not have been one penny with which to carry out the purposes of Assembly Bill 477.

* * *

Attorney General's Ruling Was Against This Contention.—To make a long story short, it was necessary to study the entire matter anew. An opinion of the Attorney General of California was sought. Fortunately his ruling was against the interpretation of "unencumbered" moneys as above referred to.

So now, at last, it may safely be asserted that California will have a state medical library, for on date of December 28, 1931, the sum of \$42,175.96 was transferred to the Regents of the University of California for the organization and maintenance of a state medical library.

It is logical to assume that the Regents of the University of California in due time will authorize President Sproul to call the advisory board of the library in session, and that steps will then be taken to bring the institution into existence.

It has been a long struggle. For the services more recently rendered, acknowledgment is again made to the different friends who were mentioned in previous editorials, and notably to Dr. Junius B. Harris and to Hartley Peart, Esq., who have given most efficient aid in securing the happy end result. Once this California State Medical Library begins to operate, we are certain that through its services it will endear itself greatly to the members of the medical profession of California. With so happy a consummation, the struggle for this state medical library may be said to have more than justified itself. With the passing of the years the beneficent nature of this act of the last legislature will become increasingly apparent.

AN INTERESTING EXPERIMENT IN MEDICAL EDUCATION AT TULANE UNIVERSITY

Tulane University Erects a New Type of Medical School Building.—A month or so ago, the editor was privileged to inspect with Dean Charles C. Bass of the Tulane University School of Medicine a new building which has been erected immediately adjacent to the large Charity Hospital in New Orleans, on a plot of ground purchased by the University. The area comprises a small city block. The present building is the first of several

units which it is hoped to erect in the future to carry out other details in the plan. For the present structure, the University is largely indebted to the Rockefeller Foundation and the General Education Board, which organizations gave this aid as an expression of appreciation for the excellent public health service which Tulane has been rendering in Louisiana during these many years.

Because the Tulane plans contemplate a considerable departure in teaching methods which appeal to the editor, and because it seems a bit strange that the medical teaching innovations contemplated should not have been thought of and put into practice before now by executives of institutions who have had at their disposal vastly greater financial resources than has Tulane, special comment is here made.

* * *

Keeping All Medical Students Together.—Before discussing the new building and its purposes, it may be of interest to state that Dr. Bass committed himself as being in favor of not separating the first and second year medical students from contacts with third and fourth year medical students. That has been a viewpoint which the writer has long held. We have long believed that it would be difficult to show what real advantages accrue to students of medicine by placing them in buildings located on campuses largely devoted to liberal arts and engineering students. It has always seemed to the writer that academic culture and enthusiasms were things to be largely obtained before the study of medicine was commenced; and that there was a real inspiration to be had by first and second year students when such were given an opportunity to contact somewhat with and observe third and fourth year fellows who were making their first excursions into the domain of clinical medicine.

* * *

What Are the Special Features in This New Tulane Unit?—What then is so new in the construction and purposes of this new unit designed especially for the fourth year medical students of Tulane? To answer this question, it is necessary to state that at Tulane the third year medical students will do practically no dispensary work with ambulatory patients, but will carry on their clinical studies almost entirely in bedside study of patients in the Charity Hospital.

As fourth year students they will deal largely with ambulatory patients, but under rather different auspices from those which were offered to graduates of former days.

In this new building at Tulane, selected ambulatory patients will be admitted to receive the services of the institution. These patients will be first met by staff members, and a certain number, say a dozen or so, will gradually be assigned to each senior student. All such prospective patients will be given appointment cards to return at certain hours and days, at which time the patients will go to the office rooms designated. In those different office rooms the patients will find the

senior students who for the time will be their respective personal physicians.

The rooms of the student doctors will have their names on the doors and the rooms themselves will be equipped with the kind of furniture the students would be apt to buy when starting practice. Each room is equipped with a substantial desk, with a chair for the student doctor and another for the patient. In one corner is a curtained dressing alcove. There is the usual examination table. Also a laboratory desk with microscope and necessary equipment for those routine blood and other examinations which the student doctor's training should permit him to personally use after his graduation.

The object of this arrangement is to take the senior students and place them under conditions such as will confront them when they start their careers in private practice. Each student doctor thus has his own group of patients for whom he is solely responsible, he being expected to make and record thorough and comprehensive examinations and to prescribe and supervise the treatment that may be indicated. There is, of course, conference supervision by faculty members. In connection with the office rooms of each specialty or division of medicine and surgery, there is a conference room to which the student doctors bring patients for consultation and conference. From time to time each student doctor is transferred to other services, and when he leaves a service, he has his patients come in to be introduced to the new student doctor who will take over his practice.

In this way, during his fourth year, each senior student is given excellent opportunity to add to his knowledge and proficiency in the practice of both the science and the art of medicine.

Also when patients are discharged they are told how important it is to make an effort to retain their health, and they are reminded that the complete records concerning themselves are kept on file in the institution. Further, that it is expected that they will report from year to year for such follow-up "health examinations." When a patient is discharged, an appointment card for such a health examination is given and the patient is told that he or she will also be notified to come in when the time for such reexamination approaches.

* * *

Such a Departure in Medical Training Will Appeal to Many Physicians.—Dean Bass was very modest concerning the above and other plans. We believe they are of a nature to appeal greatly to many physicians who recall their own hesitant steps in early days of private practice.

It is refreshing to note Tulane's departure from routine paths of medical education. Its efforts to not only give its graduates proper academic education but also these new methods, to fit them with basic clinical experience and best means of utilizing the same, should be watched with much interest, not only by medical faculties but by physicians in general. The plans seem thoroughly sound and should be rewarded with success.

MEDICINE TODAY

This department of California and Western Medicine presents editorial comment by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to every member of the California, Nevada and Utah Medical Associations to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

Bladder Neck Contracture.—The symptoms commonly associated with prostatic hypertrophy, namely, difficult urination, slow stream, frequency, urgency, and dysuria, may occur when the size of the prostate is normal, or even smaller than normal. This phenomenon of "prostatism sans prostate" is due to a fibrous contracture of the bladder neck, affecting mostly its posterior portion, which is elevated above the trigone and forms a dam or "median bar," which obstructs the outflow of urine.

The average age of patients with this condition is less than that of those with adenomatous prostatic hypertrophy. In fact it may be present at birth, and the most common age for its occurrence is from thirty-five to fifty-five. Long continued chronic infection of the prostate or bladder predisposes to bladder neck contracture. Its occurrence is not uncommon, being the cause of the symptoms in 15 per cent of cases of prostatism.

When a patient complains of the symptoms of bladder neck obstruction, and the prostate is normal by rectal palpation, a bladder neck contracture is suspected. A positive diagnosis, however, can be made only by the use of the cystoscope. With this instrument it is found that the bladder neck is more rigid than normal; it is thickened when palpated between the cystoscope and the examining finger in the rectum; and its posterior portion is seen to be elevated above the trigone, forming a bar at the bladder neck. A careful examination is necessary to differentiate it from the neurogenic bladder, from middle lobe prostatic hypertrophy, and from prostatitis without bladder neck contracture.

If a true bladder neck contracture or median bar is present, palliative treatment such as bladder irrigations, sounds, and prostatic massage will sometimes give some temporary relief, but this treatment is usually unsatisfactory and will never cure the condition. It is necessary to eliminate the obstruction at the bladder neck by excising or punching out the median bar. This may be done satisfactorily in most cases through the urethra. There are several types of instruments designed for this purpose, the most important ones of which are the Collings electrome, and the Young punch with its numerous improvements. The utmost familiarity with the use of cystoscopes is an essential prerequisite to the use of these instruments, but when they are used skillfully on patients who have been correctly diagnosed, the results are satisfactory.

It may therefore be stated that bladder neck contracture or median bar causes symptoms similar to those of prostatic hypertrophy, but usually

it occurs earlier and is more often preceded by a chronic infection in the prostate or bladder; that the condition is diagnosed with the aid of the cystoscope; and that most patients can be successfully treated by excising or punching the bladder neck posteriorly with an instrument used through the urethra.

ROGER W. BARNES, Los Angeles.

Transitional Forms of the Spirocheta Pallida.—Many investigators have been intrigued with the idea that the typical classical spirocheta pallida is but one stage in the cycle of development of the causative organism of syphilis. There are clinical problems in syphilis which are difficult of explanation if we admit only the existence of the full-grown spirochete but which would be more understandable if the existence of smaller types of the organism could be demonstrated. For example, take the theory of conceptional transmission of syphilis. Some authorities have claimed to have observed syphilitic children born of nonsyphilitic mothers. Such an occurrence could be explained only by the spirochete being carried into the ovum in the head of the spermatozoa. Inasmuch as the mature form of the spirochete is larger than the spermatazoa this would seem impossible. If an ultramicroscopic or a finely granular stage of the spirochete could be proved, the possibility of the paternal transmission of syphilis would seem to be established. Saleeby and Greenbaum¹ were unable to find any spirocheta pallida in human tissue emulsions which produced syphilis in inoculated animals. At times, the spirocheta pallida cannot be demonstrated in the brains of known paretics.

All of the above mentioned problems could be easily solved if we could accept the idea of there being smaller forms, granular forms or ultramicroscopic forms of the spirochete. McDonagh,² Manouelian,³ and Levaditi⁴ have described various granular forms and life cycles of this organism.

Some recent work by Warthin and his co-workers^{5, 6} would seem to furnish almost indis-

¹ Saleeby, E., and Greenbaum, S. S.: Comparative Biologic and Histologic Study of Lymph Glands From Syphilitic Patients. *J. A. M. A.*, Vol. 96, No. 2, page 98, January 10, 1931.

² McDonagh, J. E. R.: The Biology and Treatment of Venereal Diseases. Lea and Febiger, Philadelphia and New York, 1916.

³ Manouelian, Y.: *Compt. rend. de Soc. de Biol.*, 104:249, 1930.

⁴ Levaditi, C.: *Ibid.*, 104:477, 1930.

⁵ Warthin, A. S., and Olsen, R. E.: The Granular Transformation of Spirocheta Pallida in Aortic Focal Lesions. *Am. J. Syph.*, Vol. 14, No. 4, page 433, October 1930.

⁶ Warthin, A. S., and Olsen, R. E.: The Apparent Sequence of Spirochete and Granular Forms in Syphilitic Buboos. *Am. J. Syph.*, Vol. 15, No. 2, page 145, April 1931.

putable proof that such forms exist. By special staining methods⁶ they have demonstrated both in syphilitic bubos and syphilitic aortas five different stages of the spirochete. These are (1) the typical large spirochete form; (2) the ring or polymorphous form; (3) the small spirochete; (4) the lymphocytic granules; and (5) the giant cell reaction stage granules. The large spirochete stage is the typical spirochete with which we are all familiar. The small spirochete is one with only two to four tenuous filamentous spirals which requires a special staining technique for its demonstration. The polymorphous or ring forms seem to begin as enlargements, a clubbing, of one end of the spirochetes which then coil upon themselves to form complete or incomplete rings of varying sizes. The lymphocytic granules are fine granules which occur in the lymphocytes of syphilitic lesions. They are quite frequently associated with one or more of the other stages mentioned above. These same granules have been described by Saleeby and Greenbaum.¹ Akin to these lymphocytic granules are similar granules and fine threads which occur in the giant cells of a syphilitic process and which occasionally take on the spiral form of the spirochete. Levaditi has observed similar types in giant cells and has suggested that an ultramicroscopic form may be derived from these small granules.

Warthin's articles are replete with excellent convincing photomicrographs. A schematic chart is shown (p. 436, *Amer. Jour. Syph.*, Vol. xiv No. 4). This work is of vital and far reaching importance. It may be the solution to many of the previously unsolvable problems of syphilis.

H. J. TEMPLETON, Oakland.

Physiologic Limitations of Surgery of the Sympathetic Nervous System.—In 1913, Boeke¹ announced that every muscle fiber has an accessory sympathetic nerve. Recent studies by Wilkinson,² Hinsey,³ and others have failed to confirm this conclusion, and Wilkinson has even gone on to say that no skeletal muscle fiber receives a sympathetic nerve ending. Sympathetic fibers have, however, been traced to the capillaries of muscle, and there is reason to believe that this is the chief destination of the postganglionic fibers passing to muscle.

"It is therefore questionable as to the necessity of the sympathetic system for the maintenance of normal reflex posture or the exaggerated postures of spastic paralysis, and that any influence which it may appear to exert is secondary and due to an obscure effect upon the usual somatic reflex mechanism. Whether this secondary effect justifies ramisection in spastic paralysis is open to question."⁴

¹ Boeke, J.: Die doppelte (motorische und sympathische) efferente Innervation der quergestreiften Muskelfasern. *Anat. Anz.*, 44:343-356, 1913.

² Wilkinson, H. J.: The Innervation of Striated Muscle. *M. J. Australia*, 16, 2:768-793, 1929.

³ Hinsey, J. C.: Some Observations on the Innervation of Skeletal Muscle of the Cat. *J. Comp. Neurol.*, 44:87-195, 1927.

⁴ Fulton, J. F.: The Physiological Basis of the Surgery of the Sympathetic Nervous System. *New England J. Med.*, 203:555-559 (Sept. 18), 1930.

Fulton has summed up the indications for sympathetic surgery very tersely and clearly by saying that "apart from Hirschsprung's disease and certain bladder conditions, the only unquestioned physiological indications for ramisection are those relating to conditions of ischemia. Any pathologic process in which healing would be greatly accelerated by an increased blood supply, offers an indication for ramisection, especially if the morbid process threatens the existence of an extremity. Hence in Raynaud's and Buerger's disease and in certain types of arthritis, the improvement following ramisection is certainly attributable to the resulting hyperemia."

Fulton closes his argument by quoting Cannon⁵ to the effect that "in the general physiology of the organism the sympathetic system primarily maintains constancy of composition of the fluids of the body. This is done by control over the vegetative functions—heart, blood vessels, sweat glands, etc.—and it is not surprising that recent work has failed to confirm the early idea that the sympathetic also governed certain phases of muscular contraction. There is no doubt that ramisection causes transient modification in postural contraction, but no reflex involving the skeletal musculature is ever destroyed as a result of interference with the sympathetic. Consequently since the alterations in postural reflexes are short lived there is no obvious justification physiologically for ramisection in cases of spastic paralysis."

Royle, in a recent report, states that he has performed the operation of sympathetic ramisection 600 times in approximately 300 different patients with an operative mortality of .5 per cent and claims that 70 per cent of the patients so treated have been more or less benefited. On the other hand, Symonds,⁶ and other English surgeons who have followed up the cases operated by Royle in England, conclude that the operation of ramisection appears to have no place of value in the treatment of spastic weakness.

LEO J. ADELSTEIN, Los Angeles.

⁵ Cannon, W. B.; Newton, H. F.; Bright, E. M.; Menkin, V., and Moore, R. M.: Some Aspects of the Physiology of Animals Surviving Complete Exclusion of Sympathetic Nerve Impulses. *Am. J. Physiol.* 89:84-107, 1929.

⁶ Symonds, C. P., et al.: On the Value of Ramisection in Cases of Spastic Weakness. *Lancet*, 2:127-128 (July 19), 1930.

Planes Carriers of Mosquitoes.—Planes from the tropics will probably carry along with the fire extinguishers, spray guns for killing insects. This innovation is to be expected as a result of studies of mosquito transportation by airplanes made by the United States Public Service. The Service investigated the possibility of insects getting a free plane ride into the United States and bringing yellow fever with them because the disease still occurs in parts of South America. Under normal average conditions about airports, heavy infestation of airplanes would not be likely, but even one infected mosquito of the yellow fever carrier type might be the means of starting an epidemic. However, considering the small number carried by aircraft and the facility with which planes may be freed from mosquitoes, the investigators concluded that, while the danger exists, airplanes can be efficiently treated so as to destroy mosquitoes and thus avoid retardation of air traffic progress. The investigations were made with the coöperation of the Pan-American Airways System.—*Journal of the Missouri Medical Association*, January, 1932.

STATE MEDICAL ASSOCIATIONS

CALIFORNIA MEDICAL ASSOCIATION*

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OFFICIAL NOTICE

Hotel Huntington

Rates for Annual Session, May 2-5, 1932

American Plan rates—All rooms with bath:

Double room, \$7 each person.

Two singles (connecting), \$8 each person.

Single room, \$9 each person.

European Plan—All rooms with bath:

Single room, \$4 per day,

Double room, \$6 per day.

Early reservation is advisable. Address Hotel Huntington, Pasadena.

COUNCIL MINUTES

Minutes of the Two Hundred and Third Meeting of the Council of the California Medical Association

Approved at the Two Hundred and Fourth Meeting of the Council of the California Medical Association January 16, 1932

Held in the Crystal Room of Hotel Huntington, Pasadena, Saturday, September 26, 1931, at 9 a. m.

Present.—Doctors Harris, King, Pallette, Hamlin, Arnold, Duffield, Ullmann, DeLappe, Phillips, Schaupp, Rogers, Hunter, Cushman, Kiger, Catton, Reinle, Kress, Pope, and General Counsel Peart. Also Doctors Kinney, chairman of the Committee on Public Relations, and Fitch C. E. Mattison, chairman of the Arrangements Committee.

Absent.—Doctors Peers and Kelly.

1. **Call to Order.**—The meeting was called to order by the chairman, Oliver D. Hamlin.

FINANCIAL DEPARTMENT

2. **Financial Statement.**—Financial statement for the month of August was submitted by the secretary as follows:

August, 1931

Total receipts for August.....	\$ 3,469.87
Total expenses for August.....	5,334.64

*Loss for August.....	1,864.77
Gain for seven months.....	19,270.92

Net gain for 1931.....	\$17,406.15
Cash on hand, August 1, 1931.....	\$72,934.38
Cash on hand, Revolving Fund.....	500.00
Cash on hand, petty cash.....	50.00
Cash on hand, Salary Fund.....	1,300.00
	74,784.28

†Total cash on hand, August 31, 1931.....\$92,190.43

* The apparent increase of expenses over receipts from April to December is occasioned by the fact that the major portion of dues is received during the first three months of the year.

† At the Council meeting on May 23, 1931, \$25,000 of the funds of the Association were authorized placed to the Trustees of the California Medical Association for investment.

Action by the Council.—On motion of Arnold, seconded by Phillips, the following resolution was adopted:

* For a complete list of general officers, of standing committees, of section officers, and of executive officers of the component county societies, see index reference on the front cover, under Miscellany.

Resolved, That the financial statement for the month of August 1931 be approved as presented.

3. **Herzstein Bequest.**—A letter was read from Mr. Peart, the general counsel, stating that it would be well to formulate a plan for the use of the Herzstein bequest.

The secretary stated that there had been discussion of the use of the income from this bequest for radio broadcasting.

Action by the Council.—On motion of Duffield, seconded by Harris, the following resolution was adopted:

Whereas, The interest of the Herzstein bequest is accumulating; and

Whereas, Consideration has been given by this Council from time to time of the most effective use of this income; now, therefore, be it

Resolved, That the attention of the Public Relations Department be called to the availability of the income from the Herzstein Bequest Fund for such public relations activities as may be authorized by the Council.

ADMINISTRATIVE DEPARTMENT

4. **Minutes of the 202nd Meeting of the Council.**—The chairman stated that the minutes of the 202nd meeting of the Council had been mailed to all members and if there were no objections, he would entertain a motion for their approval without further reading.

Action by the Council.—On motion of Phillips, seconded by Schaupp, the following resolution was adopted:

Resolved, That the minutes of the two hundred and second meeting of the Council be approved as mailed to all councilors.

5. **Minutes of the Executive Committee.**—The chairman stated that the minutes of the 128th and 129th meetings of the Executive Committee had been mailed to all councilors.

Action by the Council.—On motion of Harris, seconded by Phillips, the following resolution was adopted:

Resolved, That the minutes of the one hundred and twenty-eighth and one hundred and twenty-ninth meetings of the Executive Committee as mailed to all councilors be approved.

The secretary stated that digests of the minutes of these two meetings, for publication in the JOURNAL, had been prepared, and asked if these should be read.

Action by the Council.—On motion of Kress, seconded by Duffield and carried, the following resolution was adopted:

Resolved, That digests of the minutes of the Executive Committee as prepared by the secretary for publication in the JOURNAL be hereafter appended to the Executive Committee minutes when the drafts are mailed to the councilors for preliminary consideration.

6. **Minutes of the House of Delegates.**—The secretary stated that Doctor Kress had suggested that the minutes of each meeting of the House of Delegates be numbered. Doctor Pope stated that the first meeting of the House of Delegates in 1903 was held during thirty-third annual session, and that in 1915 both the House of Delegates meetings and the annual session were omitted because of the meeting of the American Medical Association in California.

Action by the Council.—On motion of Kress, seconded by Kiger, the following resolution was adopted:

Resolved, That the secretary be authorized to give each meeting of the House of Delegates from the time of organization of the House in 1903, its proper sequence number as a means of readier reference thereto.

7. Publication of Minutes.—Doctor Duffield called attention to the fact that since the Council and Executive minutes were published in CALIFORNIA AND WESTERN MEDICINE it would be well to have the editor receive a copy of the original draft and to that end submitted the following resolution:

Resolved, That inasmuch as the minutes of the Council and the Executive Committee meetings are printed in the official journal, that the editor be added to the list of officers who receive the first draft of the minutes (before these are put in form for the councilors). (The secretary would then send copies to the president, the chairman of the Council, the chairman of the Executive Committee, the editor and the general counsel.)

Action by the Council.—On motion of Duffield, seconded by DeLappe, the resolution was adopted.

8. Membership Directory.—Discussion was had of the publication of a membership directory for 1932. It was pointed out that the California Board of Medical Examiners printed a directory each year. The secretary stated that the American Medical Association Directory was published during the odd years. It therefore seemed unnecessary to spend more than two thousand dollars yearly in a duplication of California directories.

Action by the Council.—On motion of Harris, seconded by Hunter, the following resolution was adopted:

Resolved, That publication of the membership directory for 1932 be omitted.

9. Date of 1932 Annual Session.—The secretary stated that the American Medical Association meeting would be held May 9 to 13, 1932, at New Orleans. Discussion was then had of the date of the California Medical Association annual session. It was pointed out that the American College of Physicians will meet in San Francisco April 4 to 8, 1932. Doctor King suggested that the meeting of the California Medical Association follow the meeting of the American College of Physicians and precede the meeting of the American Medical Association. Doctor Ullman suggested that the California Medical Association meet a month in advance of the American Medical Association.

Action by the Council.—On motion of Hunter, duly seconded, the following resolution was adopted:

Resolved, That the annual session of the California Medical Association be fixed for the period *April 11 to 14, 1932.

10. Date of the Next Council Meeting.—The chairman stated that the next order of business would be the fixing of the date of the next Council meeting. The secretary stated that the Constitution and By-Laws of the Trustees Of The California Medical Association provided for a meeting of the directors to be held on the third Saturday in January.

Action by the Council.—On motion duly made and seconded, the following resolution was adopted:

Resolved, That the next meeting of the Council be fixed as January 16, 1932, at San Francisco.

11. Reestablishment of Membership of Delinquent Members.—The secretary stated that according to the By-Laws, Chapter II, section 2b, members whose dues were not paid by April 1 of any year automatically lost their membership and that some provision should be made for reinstatement in the California Medical Association if dues were forwarded by the component county society secretary at a later date in the year.

Action by the Council.—On motion of Hunter, seconded by Catton, the following resolution was adopted:

Resolved, That a member of this Association delinquent in his state dues, be automatically reinstated after dues of the State Association have been accepted by his component county society and forwarded to the California Medical Association prior to December 31 of any fiscal year in which the delinquency occurs.

(*Secretary's note: See item 47 of these minutes in which the above date on reconsideration was changed to May 2 to 5, 1932.)

12. Clinical and Research Prize Rules.—Doctor Pope stated that the Executive Committee had instructed Doctor Kelly and the secretary to revise the Rules for Clinical and Research Prize papers to permit the submission of the same paper for both presentation on a section program and submission for the prize contest. Doctor Pope stated that the rules as so revised are as follows:

"Directions to entrants for the annual Clinical and Research Prizes who desire to present their contest papers at the same annual session.

"All papers entered for the Clinical and Research Prizes are eligible to be read at the annual session of the California Medical Association under the following conditions:

"Each entrant to send one copy of his paper to the State Office in the usual way for consideration by the Prize Committee, signed by his nom de plume, and under a title changed so that it could apply to a similar but different paper.

"Each entrant to send to the proper section the second copy, under his own name and proper title.

"The Prize Committee will consider each article from the standpoint of its relative value to other papers submitted for the prizes, but will be unable because of dissimilarity in the two titles of the papers as given on the program and before the committee to connect the two as being one and the same paper.

"Section officers will approve or disapprove all papers for places on specific section programs as heretofore. They will have no knowledge that any paper is under consideration by the Prize Committee."

LEGAL DEPARTMENT

13. Use of County Hospitals by Pay Patients.—Mr. Peart, the general counsel, stated that he had been in touch with Doctor Kinney of San Diego and Doctor Fairchild of Woodland and that under date of March 5 Doctor Fairchild had written him about the Colusa County situation. The general counsel then read the letter received from Doctor Fairchild.

The general counsel stated that Doctor Kinney had reported on the method of handling the situation in San Diego County.

In the discussion Doctor King called attention to the fact that the subject was covered somewhat in the report of the special Public Relations Committee.

Action by the Council.—On motion of Kress, seconded by Catton, the following resolution was adopted:

Resolved, That this matter be laid on the table until the report of the Special Committee on the Public Relations Department has been considered.

*14. (See footnote.)

15. Medical Society of the State of California.—Mr. Peart stated that he had submitted the amended Constitution and By-Laws of the Medical Society of the State of California to the associate counsel, Mr. Morrow, and that he would like to have the amendments approved in principle and the matter referred to the Executive Committee so that these amendments could be adopted and that the terms of the contract between the Medical Society and the insurance company could be settled.

Action by the Council.—On motion of Duffield, seconded by Catton, the following resolution was adopted:

Resolved, That the amended Constitution and By-Laws of the Medical Society of the State of California as presented to the Council by the general counsel, Mr. Peart, be approved in principle; that the proposed agreement between the Medical Society of the State of California with an insurance company wherein its chairman and secretary act as attorneys in fact for the members, be approved in principle; and be it further

Resolved, That this matter be referred to the Executive Committee with instructions to aid and assist in securing the adoption of said amended Constitution and By-Laws of the Medical Society of the State of California and in negotiating such agreement with such insurance company.

16. Ownership of X-Ray Plates.—Doctor Ullmann explained the method of procedure used at the Cottage Hospital, stating that if the patient were billed for an examination he could not take the plates; that it was just as feasible for the patient to demand microscopic sections as films. Doctor Ullmann stated that he posted a sign in his office stating that patients are referred to this department for examination and diagnosis only, that they are not entitled to plates, films or prints, etc.

It was stated that Doctor Ullmann's plan of handling the matter might well be on file in the secretary's office and it was suggested that a statement be inserted in *CALIFORNIA AND WESTERN MEDICINE*. Doctor Ullmann asked that the information be obtained from the Radiological Association of North America.

17. Placement Bureau.—Mr. Peart stated that the Executive Committee had instructed the secretary and the general counsel to prepare a statement to be used in correspondence relating to Placement Bureau matters. The general counsel then read the statement as prepared by them. It was suggested that the second sentence be amended to include the words "from available sources deemed reliable." The statement as amended then read:

"In furnishing information regarding possible positions and available applicants to fill such positions, the Placement Bureau gives to all parties involved all relevant information in its possession. Such information is only furnished when obtained from available sources deemed reliable by the Bureau, the Bureau not assuming any responsibility in the premises. Of course, final decision regarding business standing and integrity, and professional character and ability, must necessarily rest with the interested parties."

Action by the Council.—On motion of Duffield, seconded by Catton, the following resolution was adopted:

Resolved, That the statement as amended be placed on all letterheads used for Placement Bureau correspondence.

*18. (See footnote.)

*19. (See footnote.)

20. Insurance Company.—Mr. Peart, the general counsel, read excerpts from the policy of an insurance company stating that the matter had been brought up through a letter from the secretary of the Los Angeles County Association.

The general counsel was instructed to send information to Doctor Wilson.

21. Health Service Associations.—The secretary was instructed to get full information about certain so-called health insurance companies.

EDITORIAL DEPARTMENT

22. Advertising Agent.—Doctor Kress stated he wished to take up some items contained in his letter of June 15. Discussion was then had of an advertising agent for Southern California. Doctor Kress stated that the southern councilors had met with Mr. Butterworth, an experienced advertising man, who had kindly consented to give his time and advice in the selection of an advertising agent; that Mr. Butterworth stated that he felt that an advertising agent could secure considerable advertising in southern California but that a full time man was necessary.

Action by the Council.—On motion of Kress, seconded by Catton, the following resolution was adopted:

Resolved, That this matter be turned over to the Los Angeles councilors with power to select an advertising representative for southern California; that such employment of such advertising agent be subject to a contract covering the terms, compensation, etc., as may be prepared by this Council upon advice of the general counsel, Mr. Peart.

Action by the Council.—On motion of Kress, seconded by Ullmann, the following resolution was presented:

Resolved, That the Los Angeles group of councilors be permitted to use their best judgment in allowing

this advertising man an initial drawing account of not to exceed \$200 per month.

It was pointed out that to cover the cost of such drawing account, sixteen additional pages of advertising would have to be secured. Discussion was then had as to the length of time for which this drawing account should run. It was stated this might be set at three months. Letter from Doctor Kelly was then read.

Doctor Kress then submitted the following substitute motion; which was accepted by Doctor Ullmann and the second, and duly seconded and carried:

Resolved, That the councilors from southern California be authorized to engage an advertising agent on a drawing account not to exceed \$200 per month and not to exceed in the aggregate \$600.

23. Book Shelf Page in California and Western Medicine.—Proposed California Medical Association Subscription Department for medical books and magazines. Discussion was had of the possibility of instituting a book shelf page in *CALIFORNIA AND WESTERN MEDICINE* as an aid to the institution of a proposed subscription department for medical books and magazines to be conducted through the California Medical Association office as outlined in Doctor Kress' letter of June 15 to the Council. Doctor Kress stated it had been estimated that an additional income of something like one thousand dollars (\$1,000.00) yearly might be secured from this source, if it met with the same success as similar pages in other journals. Full discussion was then had of the service rendered members of the profession by a bookstore now operating in San Francisco.

Action by the Council.—On motion of Hunter, seconded by Harris, the following resolution was adopted:

Resolved, That for the present the matter of the establishment of a book shelf page in *CALIFORNIA AND WESTERN MEDICINE* with institution of a California Medical Association subscription department be deferred.

Doctor Kress stated that he was willing to waive this suggestion for a book shelf page to be conducted in connection with a California Medical Association subscription department, and that he had presented it in order to have the members of the Council keep in mind that this might be made a possible source of considerable income to the Association.

It was pointed out that the expense of carrying books on hand would be tremendous. Doctor Kress in reply stated that it was not his intention to have the Association purchase any books or journals at all, but simply to act as a subscription agency for members of the California Medical Association, thus securing the discounts and commissions for the California Medical Association on the purchase of all books and journals ordered through its office.

24. Reading Notices.—Doctor Kress stated that the matter of insertion of reading notices of advertisers in the *JOURNAL* was a question of policy; that the *JOURNAL* had never given reading notices to advertisers. Doctor Kress stated that decision as to acceptance really rested with the secretary. The secretary then stated that she believed such a page would be inadvisable.

Doctor Kress stated he was willing to waive this suggestion.

25. Stitching the Journal.—Doctor Catton stated that the Association could save considerable money by returning to the old form of stapling the *JOURNAL*.

Action by the Council.—On motion of Catton, seconded by Schaupp, the following resolution was presented:

Resolved, That hereafter *CALIFORNIA AND WESTERN MEDICINE* be stapled.

Doctor Kress stated that he felt that the Association owed it to the members at large who do not attend the annual sessions to give them the best journal possible. Doctor Kress then spoke of the superiority of stitching over stapling, and the desirability of having a back edge to the journal, which

the stitching permitted. Doctor Hunter stated that he agreed with Doctor Kress. Several councilors expressed an adverse opinion to hasty action.

Doctor Kress requested that no action be taken at this meeting, and stated that at the next Council meeting he would submit samples of both types of binding so that the councilors could better judge for themselves on the two types of binding.

Action by the Council.—On motion of Kress, duly seconded and carried, the following resolution was adopted:

Resolved, That the matter be laid on the table and that the editor be requested to obtain from the printer information and samples of the two types of binding, with notations as to relative advantages, cost, etc.

Action by the Council.—On motion of Kress, seconded by Schaupp, the following resolution was adopted:

Resolved, That the report on type of binding be submitted in time for the next Council meeting.

The secretary stated that the extra cost of stitching over stapling was \$99 per month on a total of some six thousand copies printed each month.

26. Advertising Income.—The secretary gave a comparative report on advertising for the years 1930 and 1931 and stated that the loss for the present, considering the financial depression, was not unusual, and that in comparison with losses in advertising in other journals it was low; that for corresponding months, the loss for the year 1931 was little in excess of the loss for the preceding year.

27. Medical Economics.—The editor called attention to an editorial published on page 288 of September CALIFORNIA AND WESTERN MEDICINE regarding medical economics problems in which it was requested that county societies discuss the symposium. Doctor Kress suggested that a letter be sent to all county societies on the subject.

Discussion was then had and it was suggested that Doctor Graves be consulted, since he is chairman of the Committee on Medical Economics.

Action by the Council.—On motion of Duffield, duly seconded, the following resolution was adopted:

Resolved, That such letter be sent out through the office of the secretary in consultation with Doctor Graves.

Doctor King stated this matter would come up for discussion when the special committee on the proposed Public Relations Department reported and that it might be well to let the matter under discussion come up for consideration in connection with that report when it was presented.

28. Annual Session Papers.—Doctor Kress called the attention of the Council to the fact during this last year it had been necessary to return to some of the speakers at the San Francisco annual session the papers which were there read, with a statement that because of their somewhat technical character, etc., and because of the large amount of unpublished material on hand, it would not be possible for CALIFORNIA AND WESTERN MEDICINE to accept their papers for publication.

Doctor Kress felt that this worked a hardship upon members of the Association who spent much time in preparing their papers for annual session presentation, and who were looking forward to publication in the official journal of their own state society.

In order to minimize such contingencies in the future, he requested that the editor be given permission by the Council to send out a letter which he read to the Council and which was addressed to the chairman, secretaries and Program Committees of the different sections of the California Medical Association.

Action by the Council.—On motion duly made and seconded, the following resolution was adopted:

Resolved, That the editor be authorized to send out such letter.

COMMITTEES

29. A Report of Special Committee on Formation of a Public Relations Department.—Doctor King stated that a number of matters which had been discussed during the morning and several other items on the docket might well be postponed until the special committee report on a Public Relations Department had been presented.

Action by the Council.—On motion of Kress, seconded by Hunter, and carried, the following resolution was adopted:

Resolved, That the next order of business be the presentation of the report of the Public Relations Department.

The special committee appointed to bring a report on a proposed Public Relations Department, consisting of Doctors Lyell C. Kinney, Joseph M. King and Karl L. Schaupp, through Doctor Kinney, the chairman, made its report. Doctor Kinney called attention to the phraseology of the resolution as submitted to the House of Delegates at San Francisco in 1931 with special reference to the phrase "doctor of medicine as a business manager." Doctor Kinney then presented a chart covering the various departments of the California Medical Association, *i. e.*, Administrative Department, Legal Department, Editorial Department, in relation to the proposed Public Relations Department.

It was stated that it should be made clear that the Department of Public Relations would be subordinate to the Council and the Executive Committee; that it should be so expressed that the director would know that he is acting under the Executive Committee, councilors and officers. Doctor Kress suggested that the Council consider whether or not the Committee on Industrial Practice should be incorporated in the group of committees which will make up the Public Relations Department. The committee was then discussed in full.

Action by the Council.—On motion of Ullman, seconded by Hunter, it was

Resolved, That the report of the committee be accepted with such changes as may be found necessary by the general counsel.

Doctor Kinney then read the resolution on the establishment of the Department of Public Relations. It was suggested that it might be advisable to provide that the head of the department be known by some title such as "executive secretary." Mr. Peart suggested that the Council insert a statement that all policies be formulated by the Council, or Executive Committee under direction of the Council, and that all activities are to be approved by the Council, etc. Doctor King stated that the report of the committee was general. The resolution was then amended and re-read by Doctor Kinney as follows:

Pursuant with the direction of the House of Delegates as embodied in Resolution No. 1, adopted April 30, 1931, at San Francisco, it is hereby

Resolved, That a Department of Public Relations of the California Medical Association be and hereby is established, to consist of a director, an Advisory Committee, and those standing committees or commissions of the California Medical Association whose present functions deal with Public Relations, Public Health or Public Education. It is further

Resolved, That the structure and function of the Department of Public Relations be as follows:

1. The function of the Department shall be to promote the leadership of the medical profession in public health activities, public health education, legislation dealing with public health and medicine, and in the distribution of adequate medical care.

2. The actions, policy and budget of the Department shall be authorized by and subject to the approval of the Council of the California Medical Association or the Executive Committee, under authorization of the Council.

3. The director of the Department shall also have the title of "executive secretary" as provided by the

Constitution of the California Medical Association. He shall be appointed annually by the Council at its reorganization meeting and his salary and duties shall be fixed by the Council. He shall be a graduate doctor of medicine but need not necessarily be a member of the California Medical Association.

4. The director shall, with the coöperation of the Advisory Committee, assist the component committees of the Department in carrying out their respective duties as designated in the Constitution of the California Medical Association or as defined by the Council or House of Delegates.

5. The Advisory Committee shall consist of the chairman of the component committees or commissions together with the president, the secretary and the general counsel of the California Medical Association. The Advisory Committee shall be known as the Committee on Public Relations and shall assist the director in coördinating the work of the component committees. This committee shall select its own chairman and secretary (who shall also be the chairman and secretary of the Department at meetings thereof) and be governed by the provisions of Chapter V of the By-Laws of the California Medical Association regarding standing committees.

6. The component committees of the Department of Public Relations at present shall be the Committee on Public Policy and Legislation, the Committee on Health and Public Instruction, the Committee on Medical Economics, the Committee on Hospitals, Dispensaries and Clinics, and the Cancer Commission. The Council at its discretion may add other committees to the Department.

Action by the Council.—On motion of Schaupp, seconded by Hunter, the following resolution was adopted:

Resolved, That the resolution as read by Doctor Kinney be adopted.

Discussion was then had of the organization of the Department.

Action by the Council.—On motion of King, seconded by Duffield, the following resolution was adopted:

Resolved, That the secretary be instructed to call the members of the Committee on Public Relations together for organization at a time and place which she may think desirable; and that the members of the committee be instructed to take up at the first meeting the question of securing or recommending to the Council a director, salaries and such other recommendations as will make the Department of Public Relations an actively functioning portion of our Association.

Doctor Schaupp stated that with the acceptance of the report the work of the special committee was finished.

Action by the Council.—On motion of Catton, seconded by Ullmann, the following resolution was adopted:

Resolved, That the resolution as amended by our counsel be approved and the committee discharged.

Doctor Kress stated that the approximate salary of the director should be decided upon as a working basis. Doctor Duffield stated that the Association could let this matter stand; that it would have to pay a salary, traveling expenses, secretarial help, etc., and the Association would probably have to expend not less than \$12,000 to \$15,000 a year.

*29b. (See footnote.)

29c. **Medical Economics Symposia in County Societies.**—It was suggested that a letter go out from the Department of Public Relations requesting a discussion of the symposium which appeared in the September JOURNAL and that county societies be requested to send in suggestions to the Department of Public Relations.

29d. **Contract Practice Studies, American Medical Association Letter Thereon.**—Letter from the American Medical Association regarding questionnaire on clinics, group practice, contract practice, etc., was presented and was referred to the Department of Public Relations.

30. **Agreement Between Los Angeles County Medical Association and Metropolitan Water District.**—The chairman stated that the next order of business would be the presentation of a letter from the American Medical Association regarding source of information of news item in the American Medical Association *Journal*.

Action by the Council.—On motion of King, seconded by Cushman, the following resolution was adopted:

Resolved, That the reply of Doctor Woodward regarding source of information of news item in the American Medical Association *Journal* be referred to the Executive Committee.

31. **Membership of Industrial Practice Committee.**—The secretary stated that Doctor Crosby wished to resign from the Committee on Industrial Practice.

Action by the Council.—On motion of Hunter, seconded by Ullmann, the following resolution was adopted:

Resolved, That the resignation of Doctor Crosby be laid on the table.

32. **Committee on Hospitals, Dispensaries and Clinics.**—Letter from the chairman of the Committee on Hospitals, Dispensaries and Clinics suggesting that Doctor Wallace Dodge of Los Angeles be appointed to fill the vacancy on the committee, was presented.

Action by the Council.—On motion of DeLappe, seconded by Reinle, the following resolution was adopted:

Resolved, That Doctor Dodge be appointed a member of the Committee on Hospitals, Dispensaries and Clinics to fill the unexpired term of Doctor Moseley; term expiring 1933.

33. **Committee on Scientific Work.**—Doctor Schaupp stated that he desired to submit his resignation as a member of the Program Committee on account of stress of other activities, and suggested that Dr. J. Homer Woolsey of San Francisco be appointed on the committee.

Action by the Council.—On motion of Kress, seconded by Duffield, the following resolution was adopted:

Resolved, That Doctor Woolsey be appointed a member of the Committee on Scientific Work to fill the unexpired term of Doctor Schaupp; term expiring 1932.

34. **Arrangements Committee.**—Fitch C. E. Mattison, chairman of the Committee on Arrangements, submitted a tentative plan for the next annual session. Doctor Mattison stated that no other committeemen had been appointed as yet, and that he was working through the southern councilors. Doctor Mattison stated that the tentative plan was to hold section meetings in the mornings and keep the afternoons free for various other good fellowship activities. The program was then outlined day by day.

Action by the Council.—On motion of Duffield, seconded by Hunter, the following resolution was adopted:

Resolved, That the report of the chairman of the Committee on Arrangements be accepted and Doctor Mattison be instructed to proceed in general accordance therewith.

35. **Committee on Hospitals, Dispensaries and Clinics.**—Doctor Schaupp presented the report of the Committee on Hospitals, Dispensaries and Clinics as prepared by John C. Ruddock, chairman.

Action by the Council.—On motion of Harris, seconded by Cushman, the following resolution was adopted:

Resolved, That the report be referred to the Committee on Public Relations.

36. **Committee on Health and Public Instruction.**—The secretary presented a letter from Dr. Fred B. Clarke, chairman of the Committee on Health and Public Instruction, questioning the minutes regarding the appointment of a field secretary.

Action by the Council.—On motion duly made and seconded, the following resolution was adopted:

Resolved, That the letter be referred to the Committee on Public Relations.

It was suggested that Doctor King explain to Doctor Clarke that the discussion of the field secretary at the last annual session was merely budgetary.

Action by the Council.—On motion of Ullmann, seconded by King, the following resolution was adopted:

Resolved, That the secretary send to Doctor Clarke a letter explaining that committees of the Association are not empowered to spend money except for specific purposes according to plans and procedures which have been submitted and approved by the Council.

37. Kern County Society.—Doctor Harris, chairman of the special committee to investigate the Kern County situation, stated that Doctor Bahrenburg, president of the Kern County Society, had informed him that Doctor Smith is in the East; that a meeting with the committee will be arranged after Doctor Smith's return in October.

Action by the Council.—On motion duly made and seconded, the following resolution was adopted:

Resolved, That the progress report be accepted.

38. Medical Practice and Qualifying Certificate Laws.—George H. Kress, chairman of the committee, read a report from the committee outlining the situation which faces the medical profession at this time in state medical board matters and indicating the various fundamental policies which it was necessary for the Council to consider. A copy of the report is appended to these minutes. (See page 128.)

Action by the Council.—On motion of Kress, duly seconded, the following resolution was adopted:

Resolved, That the report of the Special Committee on the Medical Practice and Qualifying Certificate Laws be referred to the Executive Committee and that the Executive Committee, in conjunction with the chairman of the Committee on Public Policy, take such initiatory steps as might be desirable in order to get further information in these matters, and that a full report be made at the January Council meeting.

MISCELLANEOUS

*39. (See footnote.)

40. Library Bill.—It was stated that while the Library Bill had been passed by both Houses and signed by the governor, the state comptroller had not yet permitted the funds to be distributed by reason of a flaw in the title of the bill.

The general counsel asked that Doctor Kress furnish him the name of the attorney for the regents of the University of California so that he could take up the matter. Doctor Kress stated he would send this information from his files to Mr. Peart.

41. Syndicated Advertising.—Doctor Phillips stated that one of the advertising managers of a local newspaper had presented a copyrighted scheme of advertising which he is trying to sell to the medical profession; that the Santa Cruz County Society did not want to endorse it without the sanction of the State Association; and that his suggestion would be to refer it to the Executive Committee for consideration.

Doctor Ullmann stated that the same type of advertising had been presented in Santa Barbara; that it was purely an advertising scheme, not really unethical, but not of real value. Doctor Schaupp stated that the same scheme had been presented in San Francisco and had not been accepted.

Action by the Council.—On motion of Duffield, duly seconded, the following resolution was adopted:

Resolved, That the matter be referred to the Public Relations Department.

42. Conveyances of Physicians.—Doctor Kress suggested that his letter regarding exemptions for conveyances of physicians be passed over until the next Council meeting.

43. League for the Preservation of Professional Rights.—Correspondence from Doctor Kress was presented regarding the League for the Preservation of Professional Rights, of which organization Dr. William Duffield of Los Angeles is president.

44. Los Angeles General Hospital.—Doctor Kress stated that inasmuch as the Council had been obliged

in the past to give considerable attention to the complications which had arisen through the maintenance of an osteopathic unit in connection with the general medical and surgical unit of the Los Angeles County General Hospital, that the members of the Council might be interested in knowing the medical superintendent of unit number one, namely the medical and surgical units, no longer had any supervision over the osteopathic unit, the osteopathic unit being a separate division of the institution.

45. Visits to County Societies.—Doctor DeLappe stated that he thought the present meeting was an opportune time to discuss topics for presentation before county societies on annual councilor visits. It was the sense of the Council that the matter be referred to the Department of Public Relations.

46. Committee on the Costs of Medical Care.—Doctor Kress stated that the complete publications of the Committee on the Costs of Medical Care were now being published for \$23, and that he thought this Association should purchase the complete set of some twenty-six reports.

Action by the Council.—On motion of Kress, seconded by Duffield, the following resolution was adopted:

Resolved, That the Association purchase a complete set of the reports of the Committee on the Costs of Medical Care.

47. Date of Annual Session.—Mr. Royce, manager of the Hotel Huntington, was presented to the Council and stated that the date set for the annual session was so early in the year that it would be impossible to give the entire hotel for the convention, as many winter guests would still be at the hotel and regular guests had to be cared for; but that if the date were set a few weeks later the Association would have the entire hotel and the arrangement would be much more satisfactory. Full discussion was then had.

Action by the Council.—A motion was made to reconsider the previous action and was passed.

Action by the Council.—On motion of Duffield, duly seconded and carried, the following resolution was adopted:

Resolved, That the date of the annual session of the California Medical Association be changed from April 11-14 to May 2-5, 1932.

48. County Hospitals.—Doctor Ullmann stated that he would like the approval of the Council to the suggestion that each county society, in handling the county hospital problem, work along a modification of the plans of procedure used in Alameda or San Diego Counties.

Action by the Council.—On motion of Ullmann, seconded by Kress, the following resolution was adopted:

Resolved, That the Council authorize councilors, when visiting county medical societies, to recommend the adoption within their district of either the Alameda Commission or the San Diego Advisory Board's plans or a modification of such, and that the Department of Public Relations make a special study of these plans to submit to the county societies.

49. Woman's Auxiliary.—Doctor Duffield stated that the Standing Committee on Associated Societies and Technical Groups had received a letter from the president of the Woman's Auxiliary which contained several requests that he would like the Council to pass upon. Doctor Duffield stated they wished the rules changed so that granddaughters would be eligible for membership in the Auxiliary.

Action by the Council.—On motion of Duffield, seconded by Harris, the following resolution was adopted:

Resolved, That the adult granddaughters of physicians be eligible to membership in the Woman's Auxiliary.

Doctor Duffield then stated that the Auxiliary wished to organize a Speakers' Bureau. It was the sense of the Council that there was no objection thereto.

Discussion was then had of a prize to be offered for the best paper on the education of a doctor's wife.

* Items 14, 18, 19, 29b, and 39 refer to matters still under consideration and publication will be made in due time.

Action by the Council.—On motion of Duffield, seconded by Schaupp, the following resolution was adopted:

Resolved, That the matter of the prize paper be referred to the Executive Committee.

Doctor Duffield then spoke of a primer that was put out by the New Jersey Auxiliary.

Action by the Council.—On motion of Duffield, seconded by DeLappe, the following resolution was adopted:

Resolved, That the matter of the primer be referred to the Executive Committee.

50. Ambulance Service Survey.—Doctor Harris read a letter from the chief of the California Highway Patrol regarding the influence which inadequate ambulance and hospital service is having upon the motor vehicle accident situation.

Action by the Council.—On motion of Hunter, seconded by Phillips, the following resolution was adopted:

Resolved, That the letter be referred to the Executive Committee.

51. Huntington Hotel.—Action by the Council. On motion duly made, seconded and unanimously carried, the following resolution was adopted:

Resolved, That the Council of the California Medical Association express its deep appreciation of the generous hospitality of the management of the Hotel Huntington.

52. Adjournment.—There being no further business, the meeting adjourned.

OLIVER D. HAMLIN, *Chairman*.

EMMA W. POPE, *Secretary*.

* * *

Report of Special Committee on Medical Practice Act and on Qualifying Certificate Act

(See item 38 of preceding minutes.)

To the Council of the California Medical Association:

In the September 1931 CALIFORNIA AND WESTERN MEDICINE, pages 228 and 239, the editor discussed the new amendments to California's Medical Practice Act, pointing out what was the possible situation which the medical profession of California was facing.

The chairman of your Special Committee on Medical Practice and Qualifying Certificate Acts believes a report should be presented at this September 26 meeting of the Council, because if any decisive action is to be taken by organized medicine, as represented by the California Medical Association, it can only be done with the sanction of this Council.

The chairman of the Standing Committee on Public Policy and Legislation, Dr. J. B. Harris, will probably be able to give us today more accurate information on the attitude of the state administration than is possessed by the undersigned, who has heard it rumored, however, that Governor Rolph is considering the appointment of an entirely new medical board.

If this is done, then such experienced members as Doctors Percy Phillips and C. B. Pinkham will be retired, as was that other hard-working and efficient board member, who was its vice-president, Dr. William R. Molony of Los Angeles.

One of the first questions before this Council is this: Does this Council, through its authorized spokesman, desire to make representation to Governor Rolph on possible appointments to the California Board of Medical Examiners?

Second: If so, shall such presentation of viewpoint take the form of recommending the reappointment of certain of the present members, and the presentation of a panel of names from which Governor Rolph might be induced to make his selections.

Third: Will this Council wish to seriously consider the possibility of instituting an initiative Medical Practice Act, at least so far as board appointments are concerned.

Fourth: If such an initiative were decided upon, would it be advisable at the same time to present a qualifying certificate or so-called basic science act in the form of an initiative.

Fifth: If an initiative should be decided upon, would the Council wish to unite with the dental profession, whose legislative committees have already gone on

record, we understand, in favor of an initiative, and perhaps with the pharmaceutical profession, whose spokesmen are also seemingly favoring such a plan.

Sixth: If such conjoint effort by two or three of these professions were made, would this Council wish its Committee on Public Policy and its Special Committee on Medical Practice Act, in coöperation with the Executive Committee, to represent the California Medical Association in such an effort.

The above, gentlemen, is a brief outline of some of the matters upon which this Council should come to some sort of conclusions at this time, because to postpone action until the spring meeting of this Council would seriously handicap any committees which might be designated to take up these important matters on behalf of the California Medical Association.

It may be of interest to this Council to know that an organization known as the "League for the Preservation of Professional Rights," through its officers, has already been active in these matters, and that the groundwork for a good understanding and coöperation with the dental and pharmaceutical professions has been laid.

It is the belief of your chairman of the Special Committee on Medical Practice and Qualifying Certificate Acts that this Council will come in for considerable criticism from the members of the California Medical Association if some definite action is not taken in the situations which confront the medical profession. He would call attention to the fact that the next state election will be held in the fall of 1932, and the subsequent state election will be in 1934. Inaction at this time would mean impossibility to rectify matters until 1934. In the meantime, much damage might be done to medical standards in California, to the great detriment of the professional and economic interests of the members of the California Medical Association.

Your undersigned chairman of your special committee urges, therefore, that essential policies be decided upon today and that the responsibility of carrying out these policies be delegated to appropriate bodies.

Respectfully submitted,

GEORGE H. KRESS,

Chairman Special Committee on Medical Practice and Qualifying Certificate Acts.

Digest of Minutes of the 130th Meeting of the Executive Committee, October 24, 1931

1. Roll Call.—All members present.
2. Financial statement for September, 1931, presented and approved.
3. Bill of \$150 for preparation of proof of exemption, to establish right of Trustees Of The California Medical Association to exemption from Federal income and state franchise tax approved.
4. Discussion regarding responsibility for selection of annual session guest speakers; report by secretary on names requested by various section officers and committee secretaries. Invitations authorized extended Walter Alvarez, Rochester; Chevalier Jackson, Philadelphia; MacFie Campbell, Boston, and Robert B. Greenough, Boston.
5. Adoption of resolution that no M. D. resident in California, who is neither an active nor an associate member of the California Medical Association shall be eligible to a place on a general meeting program of an annual session of the California Medical Association.
6. Exhibit space at Hotel Huntington considered. Space in main lobby selected as most desirable and arrangements for same with the Hotel Huntington left to the chairman of the Arrangements Committee and southern councilors.
7. Report on present status of Clarke vs. Moyle.
8. Chairman of the Council, chairman of the Executive Committee and general counsel appointed to confer on proposed changes in Constitution and By-Laws of the Medical Society of the State of California.
9. Special committee consisting of the president and legal counsel appointed to study solution of problem of inadequate ambulance service in highway accidents.

10. Discussion of activities of Woman's Auxiliary. Active interest in health work of women's clubs recommended. Financing of tea to president's wife at the next annual session approved; amount not to exceed \$300. Other financial aid, prizes or printing costs, not authorized.

11. Information on source of erroneous term "contract" in connection with "agreement" between the Los Angeles County Medical Association and the Metropolitan Water District reported. Matter tabled.

12. Plan for medical service for low salaried residents by members of a county society referred to Department of Public Relations.

13. Question of legal responsibility for reprinting in CALIFORNIA AND WESTERN MEDICINE "Propaganda for Reform" furnished by Council on Pharmacy and Chemistry of the American Medical Association referred to general counsel for investigation and report.

14. Report by editor on criticism regarding his suggestion that a paper presented before the annual session be published elsewhere on account of its technical nature.

15. Report by editor on reason for non-inclusion of health report by city health officer.

16. Request by New York man for advertising agency in that state presented. Secretary instructed to reply that New York territory was handled through the American Medical Association.

17. Request of Doctor Graves that the Medical Economics meeting at annual session be held on the second day and that no other section meetings be held while the meeting of the Medical Economics Committee is in session was presented by the secretary. Request granted and formation of Medical Economics Section deferred.

18. Minutes of organization meeting of the Committee on Public Relations authorized mimeographed and sent all members of the Council.

19. Item on school health programs allowed to lie over until a future meeting.

20. Adjournment.

* * *

Digest of Minutes of the 131st Meeting of the Executive Committee

1. Roll call.—Two members absent: Joseph M. King, president-elect, and Edward M. Palette, speaker.

2. Financial.—Financial statements for October and November, 1931, were presented and approved.

3. Budget.—Budget for 1933 discussed and referred to Council. The following special items discussed in detail:

(a) List of members with city of residence authorized published for 1931 in place of regular directory, to comply with provision in Constitution and By-Laws making publication of yearly directory mandatory.

(b) Allocation for Department of Public Relations and salary of director considered and referred to Council.

4. Invoice of general counsel for opinion regarding expert medical testimony approved.

5. Invitation from Pasadena Branch of the Los Angeles County Medical Association to hold meeting at Pasadena submitted and acknowledgment of Association's appreciation authorized.

6. Report by secretary on invited guests at annual session.

7. Facilities for golf offered by Dr. John W. Crossan at Pasadena golf clubs. Decision that Association cannot sponsor or publish notices of attractions that tend to lower attendance at scientific section meetings.

8. Discussion regarding wisdom of treating acutely ill veterans only in veterans' hospitals, however remote, or in local institutions.

9. Presentation of correspondence from member of Kern County Medical Society asking for interpretation of Constitution and By-Laws. General counsel authorized to reply. Two members appointed to act as intermediaries for the Council at meeting of Kern County Medical Society on December 19.

10. Discussion of first legal decision on ownership of x-ray plates. Decision rendered by circuit court for the county of Genesee, Michigan, authorized published in CALIFORNIA AND WESTERN MEDICINE and copy sent to Doctor French. Card used by Cottage Hospital presented by general counsel. General counsel, chairman of Executive Committee and secretary authorized to study card and prepare proper statement for use by all hospitals and one for physicians in offices. Resolved, That such cards go to all members and all hospitals with next letter to members of California Medical Association.

11. Presentation by chairman of Committee on Medical Practice and Qualifying Certificate Acts of report of the committee. Discussion by Doctor Kress and general counsel on merits of Basic Science Act and M. D. Act. Resolution adopted that report of Doctor Kress be received and that General Counsel Peart submit his viewpoints at January Council meeting.

12. Minutes of meeting of Committee on Public Relations presented as report to Executive Committee.

(a) Questionnaire on health officers and health nurses amended, approved and authorized sent to all county societies.

(b) Standards for clinics organized for the indigent and needy approved; authorized published in leaflet form and copy sent to all clinics and all hospitals in California.

(c) Licensing of Clinics.—Recommendation that a special committee be appointed to prepare a bill for the regulation of clinics to be presented at the next session of the legislature was approved tentatively. A copy of the bill when prepared was ordered sent to all members of the Council and the State Board of Health for its consideration.

(d) Recommendation that Doctor Harris take up with Sacramento Society for Medical Improvement plan of medical service in Sacramento, was approved.

(e) Discussion of medical service of Los Angeles record. No action.

(f) Resolution on nursing situation in California presented. Request for publication in JOURNAL noted. No objection.

(g) President authorized to reply to letter of Senator Rochester on which publication in JOURNAL had been requested.

13. On request of editor report on advertising agent for southern California was passed until Council meeting.

14. Recommendation regarding mandatory publication of papers read at annual session to a total of sixty made by Doctor Kress and resolution that papers selected for publication be stipulated by section officers approved.

15. Question of publication of two papers left to editor.

16. Publication of names of diplomats of American Board of Obstetrics and Gynecology in JOURNAL not approved.

17. Advertising in CALIFORNIA AND WESTERN MEDICINE reported by secretary.

18. Matter of health service offered by Santa Maria Branch of Santa Barbara County Hospital referred to district councilor.

19. Adjournment.

CANCER COMMISSION OF THE CALIFORNIA MEDICAL ASSOCIATION "Handle with Care!"

Two dangers, almost invariably fatal in their consequences, are inevitable sooner or later in the life cycle of a carcinoma: (1) the invasion of the blood stream; (2) the invasion and permeation of the lymphatics. Clinicians have been quick to recognize the importance of the permeation of the lymphatics and the embolic invasion of regional lymph nodes by the cancer cell early in the disease. Statistics teach us that a three-in-four chance of cure is reduced to a one-in-five chance the moment such an invasion of the regional glands can be recognized.

Similarly, the early invasion of the blood stream by the connective tissue neoplasms, particularly the bone sarcomata, is also well recognized and considered a probability to be ruled out by roentgenograms of the chest whenever such a sarcoma is encountered.

Not so well appreciated is the invasion of the blood stream by the epitheliomata and glandular cancers. However, as early as 1880 Weigert¹ by special staining methods demonstrated microscopically that carcinomatous cells directly invade the veins traversing a tumor. These observations were confirmed in our laboratory with particular reference to carcinoma of the breast. Schmidt² later amplified these studies and presented fifteen instances in which he found emboli of the cancer cell in the small pulmonary arteries without macroscopic evidence of involvement of the lung. The primary carcinoma in these cases occurred in the prostate, uterus, ovary, bladder, rectum, bile passages, and stomach.

The significance of these two studies is obvious. Invasion of a blood vessel in the cancerous growth resulting in metastases to the pulmonary capillaries may be present without clinical evidence. Such metastases may occur at any stage, from the very earliest. Having destroyed the wall of a blood vessel, a cancer cell hanging on the brink of a swiftly moving blood stream may be broken off at any moment and carried beyond reach of effective treatment. Numerous circumstances may hasten this fatal incident. Massage, the application of home remedies, such as heat, iodine, salves, etc., can serve only to spread the tumor by embolic metastases, thus nullifying completely any later attempts to eradicate the disease.

A similar danger lurks also in any simple manipulation or handling of a malignant tumor. The attending doctor may unwittingly be party to the dissemination of the cancer cell through his examination of the tumor, no matter how brief. Experimentally, Tyzzer³ demonstrated the evils of even gentle massage of malignant tumors grown in mice. Animals were inoculated subcutaneously with mouse carcinoma and mouse sarcoma, and the tumor allowed to grow to a small size, approximately five millimeters in diameter. In half the animals (the other half being held as controls) gentle massage of the tumor was instituted for very brief periods of thirty to sixty seconds on alternate days for one to two weeks, the total period of massage never exceeding from two to five minutes. The original tumor was then removed and the animals allowed to live for varying periods, when they were killed and a search made for pulmonary and other distant metastases. The corresponding control group was similarly treated, omitting only the massage. The number of metastatic emboli of malignant cells in the second unmassaged group totaled approximately half the number found in the first or massaged group. In other words, massage of a total duration of only three to five minutes resulted in double the number of metastases outside the original tumor. Manifestly any handling and examination of a lesion, such as a lump in the breast, must be ever so gentle and brief, and by as few hands as possible. The physician who leaves a breast sore from his examination may well have ruined the patient's chances of cure.

Summary:

1. The breaking off of a cancer cell in lymphatic or circulatory vessels is a constant threat from the moment of inception of the cancerous process. This occurrence in the blood stream nullifies any later treatment. No one can foretell or know when such a metastatic embolus is released from the original tumor. The treatment of cancer should, therefore, be considered an emergency measure as compelling as appendectomy for acute appendicitis since it is fraught with even greater danger.

¹ Weigert, C.: Eulenberg's Realencyklopädie, 1880, Bd. 8, S. 496. Quoted by Schmidt.

² Schmidt, M. B.: Die Verbreitungswege der Karzinome und die Beziehung generalisierter Sarkome zu den leukämischen Neubildungen. Gustav Fischer, Jena, 1903.

³ Tyzzer: Factors in the Production and Growth of Tumor Metastases. Jr. Md. Res., 1913, Vol. 23, p. 309.

2. As a corollary to the above, it may be emphasized that the cure of cancer is best accomplished at a time when the lesion cannot certainly be recognized as cancer except by microscopic examination. To await unmistakable clinical signs of cancer is more often than not consigning that patient to an inevitable death from complicating metastases.

3. Palpation of a tumor must be gentle and brief. Experimentally, even a brief massage of a malignant tumor doubles the number of metastases. A report of the results of different methods of treatment is incomplete, and proper evaluation impossible, without a knowledge of what has occurred in the interval between the first recognition of trouble and the treatment, with particular reference to massage.

4. A decreasing mortality rate of cancer cannot be expected until: (a) prompt application for medical aid is made by the patient at the first sign of trouble; (b) the patient avoids all massage or use of stimulating home remedies; (c) the doctor avoids all rough manipulation or handling of the potentially malignant tumor; (d) the emergency character of the care of cancer is recognized by patient and doctor alike.

EMILE HOLMAN, M. D.

COMPONENT COUNTY SOCIETIES

CONTRA COSTA COUNTY

The regular monthly meeting of the Contra Costa County Medical Society was held at the Hotel Carquinez, Richmond, on the evening of January 12.

Dr. S. N. Weil, president, presiding, appointed standing committees for the ensuing year as follows: Membership, Welfare and Public Health.—I. O. Church, William A. Rowell, and U. S. Abbott.

Committee on the History of the Contra Costa County Medical Society—C. R. Blake.

Medical Economics—L. Abbott Hedges and W. E. Cunningham.

Executive Committee for the Auxiliary—J. M. McCullough, L. H. Fraser, S. N. Weil, and Clara Spalding.

Doctor Fraser reported on the annual election of the board of directors of the Richmond Health Center. The incumbent board was reelected without any changes.

Under new business, a motion was made by L. H. Fraser and seconded by J. B. Spalding, electing C. L. Abbott an honorary member of the Contra Costa County Medical Society in recognition of the excellent, conscientious, and philanthropic work he has done in this county in the past thirty years. This was passed unanimously.

The guest speakers of the evening were George Calvin, M. D., of Oakland, who spoke most comprehensively on "Treatment of Heart Disease," and Hobart Rogers, M. D., who gave an intensely interesting moving picture on blood transfusion.

The meeting was attended by twenty members from both ends of the county, and by three guests.

After adjournment, a social half-hour, with refreshments, was enjoyed.

CLARA H. SPALDING, *Secretary*.



FRESNO COUNTY

The regular meeting of the Fresno County Medical Society was held at the nurses' home of the Fresno General Hospital at 8 p. m. on January 5. This meeting was preceded by a dinner at Hotel Fresno in honor of the speakers of the evening, Doctors Harry Spiro and William V. Newman of San Francisco.

Applications for membership were presented by Bryson E. Cox of Coalinga and G. R. Howard and Ralph F. Blecker of Fresno.

Dr. F. R. DeLappe of Modesto, district councilor, gave his annual report.

Dr. Harry Spiro of San Francisco presented a very excellent clinical paper on "The Treatment of Acute Coronary Artery Occlusion." His paper was presented in a clear and instructive manner, setting forth a schedule of treatment which he has followed for a number of years, thereby raising the percentage of cures in this type of case.

The meeting was then thrown open for general discussion, Doctor Newman answering the numerous questions brought forth by the members.

ELMER J. SCHMIDT, *Secretary*.



SAN BERNARDINO COUNTY

The meeting of the San Bernardino County Medical Society was held at the County Hospital in San Bernardino on January 5 at 8:10 p. m. The meeting was called to order by the president. There were sixty members and guests present.

Under new business a committee was appointed to investigate and report to the president and secretary regarding a member's family. The officers of the society are empowered to render such financial aid as may be deemed necessary and feasible.

Following this the program of the evening was given: Motion, talking pictures on "Anatomy of the Female Pelvis," "Vaginal Hysterectomy," and "Suspension of the Uterus for Retrodisplacement" were presented through the courtesy of the Petrolagar Company.

Discussion was opened by Dr. W. A. George at the close of which a vote of thanks was extended to the Petrolagar Company, and the secretary was instructed to communicate with them to that effect.

E. J. EYTINGE, *Secretary*.



SAN JOAQUIN COUNTY

The annual meeting of the San Joaquin County Medical Society was held Thursday, December 4, 1931, at 6:30 p. m. at the Stockton Hotel. Thirty-five members and ten guests attended.

At the conclusion of the dinner the business session was called to order by President G. H. Rohrbacher. The minutes of the previous meeting and of a special meeting of the board of directors was read by the secretary and approved.

An annual report was presented and read by the secretary-treasurer, which stood approved.

The Ballot Tellers Committee, Doctors Vischi, McNeil, and Gallegos, reported the following members elected to office: George H. Sanderson, president; J. F. Doughty, first vice-president; T. L. Sutton, second vice-president; C. A. Broadus, secretary-treasurer.

Board of Directors—J. W. Barnes, G. H. Rohrbacher, J. D. Dameron, C. F. English, Barton Powell, Sr., R. T. McGurk, and H. S. Chapman.

Admission Committee—Linwood Dozier (chairman), J. P. Hull, G. H. Rohrbacher, C. F. English, and Barton Powell, Jr.

Ethics Committee—R. T. McGurk (chairman), Hudson Smythe, N. E. Williamson, Dewey R. Powell, and Margaret H. Smyth.

Finance Committee—J. D. Dameron (chairman), J. V. Cravioto, and H. S. Chapman.

Program Committee—Barton Powell, Jr. (chairman), G. H. Rohrbacher, and Samuel Hanson.

State Medical Association—J. W. Barnes and D. R. Powell, delegates; C. A. Broadus and R. T. McGurk, alternates.

Paul R. Noetling, M.D., was reported elected to membership by transfer from the Tuolumne County Medical Society.

Doctor Rohrbacher, the retiring president, reviewed some of the work of the past year. He called particular attention to the two joint meetings in the spring with the dental society as an outstanding innovation. He recommended a repetition of this type of meeting for the better understanding between the two professions. The doctor took occasion here to thank all those members who as officers and committeemen had so freely and ably assisted him during the year.

The society was entertaining as a special guest the district councilor, Dr. Fred R. DeLappe of Modesto. The doctor spoke to the society concerning the recent meeting of the House of Delegates. He stressed especially the matter of membership. He said there are now only five thousand members out of nine thousand licensed physicians in the state. In San Joaquin

County there are seventy-seven out of one hundred and ten licensed. Doctor DeLappe also spoke of the California State Medical Library recently created by the state legislature. Forty-three thousand dollars has now been set aside to create a library which will be at the service of the medical profession of the state.

The scientific program was a symposium on cancer of the breast, put on by the Cancer Commission of the California Medical Association of which the following doctors were present: C. A. Dukes of Oakland, chairman; A. R. Kilgore, secretary; Zera E. Bolin and R. S. Stone.

In a short introductory talk Doctor Dukes outlined the origin, aims and purposes of the Commission. Doctor Kilgore took up the matter of physical examination. He stated that 90 per cent of new lumps appearing in a breast after the age of forty-five will prove to be cancerous. Those appearing before twenty-five are seldom malignant. Malignancy appears most commonly without previous pathology, more often in women who have not nursed any children, and 98 per cent are not preceded by any history of trauma.

Usually the lump is painless and is discovered accidentally. For examination the patient should be in a semireclining position with her hands clasped over her head. The presence of skin or nipple retraction makes the diagnosis easy. Visible bulging usually indicates a benign growth. Also encapsulated lumps will prove to be benign. Try to demonstrate metastasis by examination about the margins of the pectoralis major muscle. After surgical removal 90 per cent of the growths can be diagnosed by their gross appearance on section.

In talking on the matter of radiotherapy, Dr. R. S. Stone urged as very important that the radiologist be furnished with a complete history of the case. He said that radiation alone, either preoperative or postoperative or both, is very useful as a palliative treatment. Statistics show that radiation alone has better end results than surgery alone.

Dr. Zera E. Bolin spoke on the subject of "Biopsy Pathology and Pathological Demonstration." He felt that every suspected case of malignancy should be in the hands of a team made up of the general practitioner, the surgeon, the radiologist, and the pathologist. Little is still known of the etiology of cancer. The clinical examination should always be combined with the laboratory. A nonencapsulated infiltrating growth means malignancy, whereas the encapsulated type is benign. The growth when malignant spreads along the lymphatic vessels and glands and the fascial plexuses.

If a biopsy is to be done the patient should be prepared for a radical operation so that the procedure can be carried out at once if the report is positive.

The whole subject was illustrated by means of many stereopticon views and gross pathological specimens.

C. A. BROADUS, *Secretary*.



SANTA BARBARA COUNTY

The regular meeting of the Santa Barbara County Medical Society was held at the Bissell auditorium of the Cottage Hospital on Monday evening, December 14, 1931, with President H. J. Ullmann in the chair.

The two speakers of the evening not having arrived, upon motion, seconded and carried, the business portion of the meeting was commenced.

A communication from Doctor Pinkham regarding his reappointment on the Board of Medical Examiners was read and upon motion, duly seconded and carried, the attached resolution was adopted and the secretary was instructed to forward copy to Governor Rolph and Doctor Pinkham.

It was moved, seconded and carried, that the bill of \$14.50 for expenses of the November meeting at Santa Maria be paid.

The remaining business was then postponed until after the scientific program.

Dr. Rexwald Brown of Santa Barbara gave a paper on "Medical Economics."

Dr. E. L. Markthaler, chairman of the Advisory Committee to the Welfare Board, gave a report.

Dr. Verne Hunt of Los Angeles then gave an extremely interesting and instructive paper on "Peptic Ulcers," discussing the surgical and nonsurgical aspects, followed with a chalk talk on the various surgical procedures. This paper was enthusiastically received, and was discussed by Doctors Freidell, Geyman, Brown, Nuzum, Pierce, and Brunie.

The society then went into executive session and balloted upon new members, Doctors Preuss and Koehler being unanimously elected into membership.

The president then introduced Mr. Fisher, manager of a finance corporation, who gave a brief outline of the manner in which they could help the general public pay the doctors' fees. No official action was taken by the society, but it was the consensus of opinion that the society had no objection to any member coöperating with Mr. Fisher.

A questionnaire from the California Medical Association regarding health departments was read and President Ullmann appointed Doctors Brown (chairman), Markthaler, and Eaton on the committee to complete the same.

It was moved, seconded and carried, that the annual meeting of the society be held at the El Paseo.

The president then appointed Dr. Irving Wills as general chairman of the January meeting, he to appoint the various subcommittees.

* * *

The regular annual banquet meeting of the Santa Barbara County Medical Society was held in the Gold Room of El Paseo on Monday evening, January 11, at 6:30, with President Ullmann presiding.

There were present fifty-nine members and two guests.

During the dinner hour Greenough's orchestra furnished very enjoyable music.

At the conclusion of the dinner the minutes of the last annual meeting were read and ordered filed. The treasurer's report was also read and referred to the Auditing Committee for confirmation.

Resolutions which were read by Doctor Brown, were unanimously adopted by the society and ordered spread upon the minutes of this meeting, and a copy sent to Mrs. Manning.

Doctor Ullmann then introduced the speaker of the evening, Dr. G. V. Hamilton, who reviewed Hall Caine's novel "The Doctor's Dilemma." Especially interesting was Doctor Hamilton's psychoanalysis of Hall Caine himself, and his antagonism to the various practices of medicine.

Dr. Hugh Patrick of Chicago, a guest of Doctor Ullmann, was then introduced and gave a short address.

At this time Doctor Coblenz entertained the group with some interesting stories.

Doctor Mellinger then introduced his guest, Dr. Samuel McCullough of New York City.

The society then went into executive session and the applications of Doctors Jules Betero and A. M. Beekler of Santa Maria were read. Both these applications having been acted upon favorably by the board of censors, they were unanimously elected into membership.

The president called for the annual election of officers and, upon balloting, the following were elected: H. O. Koefod, president; Milton Geyman, vice-president; H. G. Hanze and Zack Coblenz, vice-presidents-at-large; W. H. Eaton, secretary; Hugh Freidell and Richard Evans, delegates for two years; Rexwald Brown and H. E. Henderson, alternates.

Dr. O. C. Jones then read the following resolution:

"We the undersigned members of the Santa Barbara County Medical Society, because of being geographically handicapped from attending meetings of the society, and because of a more convenient proximity to the San Luis Obispo County Society, respectfully request that our membership, beginning with the 1932 year, be transferred from Santa Barbara County Society to the San Luis Obispo County Society. (Signed) August L. Mollath, O. C. Jones, W. H. Conser, Z. B. Coblenz, W. D. Sink, Charles G. Gaird, Bard S. Berry."

Upon motion by Howard Eder, seconded by Allen Williams, the resolution was unanimously adopted, with the sincere regret of the society that these members were transferring to San Luis Obispo.

The president announced that he would appoint the various committees at a later meeting.

WILLIAM H. EATON, *Secretary*.

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STANISLAUS COUNTY

The regular monthly meeting of the Stanislaus County Medical Society was held on January 8 at the Hotel Hughson. Dr. J. A. Porter, vice-president, presided. Twenty members were present.

The subject of a nurses' registry and a doctors' registry was discussed at length, and the following motion was made, seconded and carried, that Modesto is not a large enough town at the present time and under the present conditions to support a doctors' registry, and that the members of the medical society approve of the suggestion of the Nurses' Association that a price reduction for special duty nurses be considered.

The question of school examinations by the county health officer of students who are able to pay for a private doctor and also the giving of toxin, antitoxin, and vaccination to students who are able to pay a private doctor for same was discussed at length. Doctor DeLappe explained that this subject would be fully explained in a statement by the health department and the Advisory Committee before the next meeting. It was moved, seconded and carried, that this subject be tabled until the next meeting.

It was moved, seconded and carried, that the next meeting be held at the Tea Room of Miss Grollman.

The subject of the recommendation and approval by the Stanislaus County Medical Society of county appointments to office was discussed. It was moved, seconded and carried, that it be the policy of this society not to make endorsements for any individual for any appointive office.

Moved, seconded and carried, that the members of the society present case reports for our next meeting instead of securing an outside speaker.

Dr. Harry Spiro of San Francisco gave a very interesting talk on the "Treatment of Acute Coronary Occlusion." Dr. William Newman of San Francisco discussed this paper, and answered a number of questions submitted by members of the society.

DONALD L. ROBERTSON, *Secretary*.

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VENTURA COUNTY

The January meeting of the Ventura County Medical Society was held in the clinic building of the Ventura County Hospital on January 12 at 8 p. m. The meeting was called to order by the president, W. S. Clark.

Members present were: Doctors Achenbach, Armitstead, Hendricks, Bardill, Welsh, Felberbaum, Shore, W. S. Clark, Strong, Smolt, Homer, Bianchi, Mosher, and D. G. Clark.

Communications were read. It was decided to obtain the spinal anesthesia films offered by the Metz Laboratories at one of the winter meetings, if possible.

The Constitution and By-Laws as drawn up by the committee were discussed and passed with certain amendments and additions.

It was moved, seconded and carried, that the Constitution and By-Laws be printed in book form to the number of one hundred copies, and one copy sent to each member.

It was moved, seconded and carried, that the board of censors should consist of the president, vice-president, and secretary of the organization.

Moved, seconded and carried, that the applications of Doctors Groff and Foscett be referred to the board of censors in accordance with the new by-laws.

The committees appointed by the chair were as follows:

Program Committee for February—Doctor Shore.
Public Health and Legislation—Doctor Achenbach (chairman), to appoint his own committee.

ARTEMAS J. STRONG, *Secretary*.

In Memoriam

Barkema, Roelf. Died January 2, 1932, age 38 years. Graduate of University of Groningen Faculty of Medicine, Groningen, Netherlands, 1923. Licensed in California, 1926. Doctor Barkema was a member of the San Bernardino County Medical Society, the California Medical Association, and the American Medical Association.

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Copeland, John Charles. Died at San Diego, December 31, 1931, age 59 years. Graduate of Baltimore University School of Medicine, Maryland, 1896. Licensed in California, 1901. Doctor Copeland was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

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Emerson, Henry K. Died at Los Angeles, January 1, 1931, age 63 years. Graduate of Cleveland College of Physicians and Surgeons, Ohio, 1897. Licensed in California, 1900. Doctor Emerson was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

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Smith, Sydney Henry. Died at San Francisco, December 17, 1931, age 52 years. Graduate of Creighton University School of Medicine, Omaha, 1909. Licensed in California, 1925. Doctor Smith was a member of the Monterey County Medical Society, the California Medical Association, and the American Medical Association.

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Walters, William Alexander. Died at Los Angeles, December 25, 1931, age 51 years. Graduate of University of Illinois College of Medicine, Chicago, 1906. Licensed in California, 1920. Doctor Walters was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

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OBITUARIES

Margaret Mahoney, M. D., 1858-1931

San Francisco lost one of its most charming and beloved physicians when Margaret Mahoney died on December 7, 1931.

Doctor Mahoney was one of the first of this generation to organize and uplift the career of medicine for women in this community. Her affiliation with Doctors Woods, Waterman, and Linscott founded the nucleus for later associations where the ideals of the medical profession were fostered and cultivated by women. This group maintained a standard of medical ethics which has been exemplar in San Francisco for all time.

Born in San Francisco on February 20, 1858, Margaret was one of several children of Denis and Margaret Mahoney. Her father was a pioneer who came to California during the gold rush of 1849. Margaret's education was acquired in San Francisco, and her high school training was completed at Saint Catherine's Academy in Benicia. A few years later she entered the San Francisco State Normal School where she graduated in 1880, and for thirty years she taught in the schools of this community. In 1892 she entered the Cooper Medical College, carrying on her studies while teaching at the Lincoln and later the Washington evening schools. Doctor Mahoney graduated from the medical school in 1895, and served her internship at the Children's Hospital. A few years later she formed a group of women physicians with offices in the De Young Building. Following an illness in 1902, she toured Europe for fourteen months,



MARGARET MAHONEY
1858-1931

studying medicine and surgery in Germany, France, Italy, Ireland, and Austria. In Europe she became an ardent enthusiast in art and the opera, which interests she maintained throughout her life.

Doctor Mahoney returned to practice in San Francisco in 1904, and during the earthquake catastrophe in 1906, she cared for the many patients who were brought to the old Mechanics' Pavilion until its destruction.

For ten years she carried on the practice of medicine at her home on Sacramento and Polk streets, where her knowledge of foreign languages materially enhanced her work. There, and later in the Butler Building, she fostered the characteristics which endeared her to all of us, devoting herself to medicine in the most ideal way. She maintained, in the fullest, the oath of Hippocrates, and her affection for the rôle of family physician made her an outstanding physician.

Death can bring no greater sorrow to a community, the medical profession, or to so many persons as it did when we were deprived of Dr. Margaret Mahoney.

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Selling Brill, M. D., 1899-1932

Dr. Selling Brill, the talented young surgeon of San Francisco, whose life hitherto had been such that the promise for the future was brilliant, died in San Francisco on January 23, after a short illness, secondary to polyarthritis.

Doctor Brill was born in Russia, but came early to this country. He spent the early part of his life in Portland, Oregon. His father is still living in Washington at the age of seventy-six. Doctor Brill received his high school education at Lowell High School in San Francisco, and his university training at Stanford, where he graduated with honors. His medical education was completed at Harvard and he spent many months with Harvey Cushing at the Massachusetts General Hospital. He carried on productive research on thoracic surgery under the guidance of Doctor Ravdin at the University of Pennsylvania, and he came to San Francisco to join the California staff of the San Francisco Hospital in 1928. Since then he has

been a most active participant in the development of the Roos Clinic of the Mack Foundation at the University of California Medical School in the study of thoracic diseases.

Doctor Brill has been known to his associates as a man of extraordinary ability, devoted to the advancement of his specialty, as a man of unusual perspicuity, and as a scientist as adamant in the interpretation of facts. His genius has been respected by all and his brilliance rarely excelled. He has made many contributions in his studies of intrapleural pressure and other problems of lung research, and he has added several noteworthy facts in the clinical interpretation and diagnosis of pulmonary lesions. Moreover, he has contributed a new liver function test, the value of which is just being recognized.

Doctor Brill was a man of admirable characteristics. He reserved the friendships of life for a limited few, but those who knew him well acceded him to be one of the best of friends. His search for facts led him to be critical and this characteristic was so highly developed that he was not appreciated for his true worth by all who came in contact with him. His critical attitude, however, was responsible, in a considerable degree, for his worthy achievements. Doctor Brill was a member of the San Francisco County Medical Society, the California Medical Association, the American Medical Association, and last year he was elected to a Fellowship in the American Society of Thoracic Surgeons. His death has closed the pathway toward a brilliant future and toward the accomplishment of much research and clinical work of unusual merit. His past accomplishments have been worthy, but his future held such promise that those who knew him and his work are deeply distressed by his death.

CHANGES IN MEMBERSHIP

New Members

Alameda County—Frederick B. Mandeville.

San Diego County—Evert F. Birkenstock, Charles L. Davis.

San Francisco County—Crete Arnett Crockett.

Ventura County—Artemas Strong.

Transfers

Edwin D. Barnett, from Humboldt to Sonoma County.

Clarence E. Bird, from Los Angeles to Louisville, Kentucky.

Harry G. Ford, from San Francisco to Contra Costa County.

Henry Walter Gibbons, from San Francisco to Sacramento County.

Resignations

David D. Charmak, from San Francisco County.

Horatio S. McGavren, from San Francisco County.

THE WOMAN'S AUXILIARY OF THE CALIFORNIA MEDICAL ASSOCIATION*

Official Notice

Prize Contest.—The state board of the Woman's Auxiliary is offering prizes of \$25, \$15, and \$5 for the three best papers on "Educating a Doctor's Wife." This contest is open to any doctor in California who is in good standing in the state society, or to his wife and children. Maximum number of words is five hundred; minimum number, two hundred. Papers should be sent to Mrs. W. H. Sargent, 109 Beechwood Drive, Oakland, not later than March 31, 1932.

* As county auxiliaries to the Woman's Auxiliary of the California Medical Association are formed, the names of their officers should be forwarded to Mrs. Louis H. Dyke, Chairman of Publicity and Publications Committee. Brief reports of county auxiliary meetings will be welcomed by Mrs. Dyke and must be sent to her before publication takes place in this column. For lists of state and county officers, see advertising page 6. The Council of the California Medical Association has instructed the editors to allocate one page in every issue for Woman's Auxiliary notes.

The names of the judges will be announced in CALIFORNIA AND WESTERN MEDICINE. The winning papers will be read at the convention the first week in May.

Component County Auxiliaries

Alameda County.—Members of the Woman's Auxiliary to the Alameda County Medical Association held their first meeting of the new year in Oakland at the Oakland clubhouse on January 8, the new president, Mrs. Thomas James Clark presiding. A delightful luncheon was followed by an interesting program. Dr. B. B. Black spoke on the interests of the Oakland Forum, which is sponsoring a series of ten lectures by well-known doctors, thus giving the public an opportunity to hear recent accomplishments in the science of medicine.

Los Angeles County.—The Woman's Auxiliary of the Los Angeles County Medical Association held its annual meeting in Mrs. William T. McArthur's home on December 17. The guests were greeted in the spirit of the holiday season by Mrs. Philip Schuyler Doane, president, and Mrs. McArthur, first vice-president. The characteristic spirit prevailed that makes these gatherings occasions when the spirit of camaraderie lightens the arduous and important undertakings of the organization itself.

Mrs. Doane, in a brief opening address, stressed the importance of intimate friendly comradeship that is the touchstone of coördinated accomplishment in any well-balanced organization. Mrs. Doane relieved the usual dull proceeding of the reading of annual reports with clever *bon mots* that were fully appreciated. She paid high tribute to the committee who had assisted throughout the year.

Election of officers followed the reading of the minutes. Mrs. Doane was unanimously reelected president. She was officially greeted by Mrs. James F. Percy, junior past state president, who expressed felicitations for the members. Other officers elected for the coming year were: Mrs. William T. McArthur, first vice-president; Mrs. Harry B. Brown, second vice-president; Mrs. George E. Hunter, corresponding secretary; Mrs. H. Waldo Spiers, secretary-treasurer.

The Los Angeles Auxiliary has acquired many new members during the past year, and is on a sound financial basis.

Following the business meeting and preceding the tea, the guests were delightfully entertained by three distinguished artists: Anna Heloise, concert dancer; Marguerite Kuehne, violinist; Mrs. Martha d'Arc, soprano.

Orange County.—The Woman's Auxiliary of the Orange County Medical Association held its November meeting at the home of Mrs. G. E. Raitt, Santa Ana. Dr. N. Kavinoky spoke on "Birth Control in Russia." Doctor Kavinoky had recently attended a conference there.

News

Our national president-elect, Mrs. Walter Jackson Freeman, is just home after a stormy voyage from Germany with her fortunately convalescent son. Our congratulations are to ourselves as well as to her for her safe return.

The mid-year meeting of the board of directors of the Woman's Auxiliary to the American Medical Association was held in Chicago, Friday, November 13, at the Pearson Hotel. Mrs. Arthur B. McGlothlan presided. Increased interest in every department is being shown by many of the state and county units. Tentative plans were outlined for the program of the annual convention to be held in New Orleans on May 9-13, 1932. It was decided to allow a two-hour period for conferences for those departments desiring them. The president announced three conferences have already been requested—one on organization, one on press and publicity, and one on conference methods.

Notes from Message of the National President

Mrs. Anna F. McGlothlan, national president of the Woman's Auxiliary, writes that last year Mrs. Hunsberger did much to get our national member-

ship file in order. The adoption of the present plan of treasurers' receipt blanks now universally used by the auxiliaries was helpful, but until every county and state auxiliary adopts the above suggested plan and reports on all the names sent them by the national office as members, the national files will be cluttered by cards which have to be classed under "delinquents."

Each county administration should feel that it had failed somehow in its duty if it did not make a sincere, persistent and tactful effort to hold in membership at least all those committed into its care by the former administration, and unless its membership is already 100 per cent of the wives of doctors belonging to the county medical society, it should attempt to make a definite, even though slight, gain.

Some of the newly organized auxiliaries are attempting nothing more than to bring about unity and solidarity within the profession by means of social contacts between the families of doctors. This function of the auxiliary should not be underestimated.

Objection to philanthropic work done by the auxiliary has been made that it but duplicates work of other women's organizations. The philanthropic work done by the auxiliary is, however, related closely to the work of the medical profession: for example, participation in Christmas seal sales of the tuberculosis societies; various types of work for hospitals, sanitariums, and preventoriums; scholarship loan funds for medical students and students of nursing; contributions to the Medical Benevolence Fund by the Pennsylvania auxiliary; contributions to memorials established or approved by medical societies. Because of the humanitarian and almost universal appeal to women, philanthropic work serves as a bond to hold them together while unity and good fellowship are established within their group. To others the educational and legislative programs make a stronger appeal. Has your auxiliary a philanthropic or an educational goal for this year? Might it not increase interest if you had?

We believe that the national mid-year board meetings and conventions are so important in the life of the auxiliary that every board member should consider it an obligation, when reasonably feasible, to attend. We are suggesting that each state auxiliary set this new goal for itself at its next annual meeting if possible, that it provide sufficient means to insure its state president's attendance at the mid-year board meeting in Chicago, and at the annual convention in the spring. We believe that every state chairman should make an honest effort to attend the national convention.

Mrs. Joseph Hume of New Orleans is the chairman of the next convention, which is to be held next May 9-13 in that interesting old city of the South, New Orleans. Our own president-elect, Mrs. Walter Jackson Freeman, who so skillfully guided the convention in Philadelphia, is also a member of the New Orleans Convention Committee.

NEVADA STATE MEDICAL ASSOCIATION

- A. C. OLMSTED, Wells.....President
- O. HOVENDEN, McGill.....President-Elect
- J. H. HASTINGS, Pioche.....First Vice-President
- E. E. HAMER, Carson City.....Second Vice-President
- HORACE J. BROWN, Reno.....Secretary

COMPONENT COUNTY SOCIETIES WASHOE COUNTY

The regular meeting of the Washoe County Medical Society was held in the lecture room of the Nevada State Building on January 12, Dr. A. R. DaCosta in the chair until the arrival of Dr. John J. Sullivan, president.

Reading of the application for membership of Dr. Berry, recently located in Reno, was read and referred to the board of censors.

The subject for the evening's discussion was "Are We Drifting Toward State Medicine?" Dr. J. L. Robinson was slated as the essayist, but owing to his severe illness there was no direct discussion on the subject. However, Mr. Clarence Patten, representing the local post of the Veterans of Foreign Wars, appeared by invitation to discuss the necessity of providing some sort of emergency medical and hospital relief for veterans, the exigencies of whose illnesses rendered it unsafe to transport sick veterans to far-off hospitals. The gist of the subject was that these emergency patients should be treated at home by local physicians and in the local hospitals, and that some arrangement should be made by the Government to pay the local physicians and the hospitals. Mr. Patten said the present relief measures were such that all ex-soldiers were privileged to apply for medical or surgical relief through the Veterans' Bureau whether the illness was of service origin or not.

The trend of discussion by the members present was that the United States Government was acting in unfair fashion in its attitude toward the medical profession of the United States when it entered into the business of practicing medicine in competition to the medical profession citizens of the country. Further, that the 45,000 physicians who served in the World War, and most of whom were now engaged in private practice and paying state and national taxes to support the Government, were compelled to sit helplessly by while the Government extended to the millions of ex-soldiers free and gratuitous medical and surgical services for nonconnected service disabilities. Not only free medical and surgical services by the Government, but free transportation to and from home. No one would complain of this gratuitous medical or surgical care to indigent ex-service men, whether the disability was of service origin or not, for, as it was pointed out, 80 per cent of the present medical and surgical aid today given ex-soldiers is of nonservice origin. But surely when gratuities amounting to many millions of dollars annually were handed out to many men abundantly able to pay for services, then something was being done that was not only unnecessary for the well-to-do veteran, but exceedingly unfair to the members of the medical profession of the country who had given so generously of themselves in the late World War.

The chair appointed a committee, consisting of Doctors T. W. Bath, J. L. Robinson, and Mr. Patten, to draw up resolutions on the matter and to report the same at the next meeting.

THOMAS W. BATH, Secretary.

UTAH STATE MEDICAL ASSOCIATION

- R. A. PEARSE, Brigham City.....President
- F. M. McHUGH, Salt Lake City.....President-Elect
- L. R. COWANS, Salt Lake City.....Secretary
- J. U. GIESY, Kearns Building, Salt Lake City.....Associate Editor for Utah

COMPONENT COUNTY SOCIETIES

CACHE COUNTY

Officers of the Cache Valley Medical Society were elected at a meeting of the organization Monday night in Logan. Dr. E. L. Hansen was named president, with Dr. T. B. Budge as vice-president and Dr. G. L. Reese of Smithfield as secretary-treasurer.

SALT LAKE COUNTY

The annual meeting of the Salt Lake County Medical Society was held at the Newhouse Hotel on Monday evening, December 14. Fifty-eight members were present.

The meeting was called to order at 8:05 o'clock by President F. M. McHugh.

The reports of the Board of Censors, W. F. Beer, chairman, and of the Committee on Public Health

and Legislation, A. C. Callister, chairman, were accepted. The report of the Medico-Legal Committee by O. J. LaBarge was a comprehensive review of the year's work. The committee made the following recommendations: (1) That complete office and hospital records be kept and maintained. (2) That all members protect themselves with physicians' liability insurance. (3) That all doctors be constantly on guard in giving information to patients or lawyers that might in any way react against any fellow practitioner. (4) That all doctors who receive a patient who is disgruntled or dissatisfied with a former doctor's treatment or result or who threatens a former doctor, shall immediately and personally communicate with this doctor and use his full endeavors for the protection of this doctor in order to prevent a malpractice suit. This report was adopted. J. J. Galligan moved that a copy of this report be sent to each member. This was discussed by A. C. Callister and J. Z. Brown. The chair ruled that this report should not be sent to each member.

Reports of the Necrology Committee, J. U. Giesy, chairman, and of the Telephone Committee, R. T. Woolsey, chairman, were adopted. The report of the Library Committee, W. R. Tyndale, chairman, was adopted. W. R. Tyndale answered R. T. Woolsey's question concerning permits for interns to use the library. He stated that the chairman of the Library Committee had issued some 169 permits during the last two years.

The report of the Boy Scout Committee, L. J. Paul, chairman, was accepted. B. E. Bonar moved that the society recommend to the Boy Scouts Council that all Scouts attending the summer camps be required to be vaccinated for typhoid fever and smallpox and be immunized against diphtheria. J. P. Kerby amended this motion to read, "by their family physician." The motion and amendment were passed.

There was no report of the Fee Schedule Committee, and the Program Committee's report was included in the secretary's report. The reports of the Committees on Medical Economics, C. L. Shields, chairman, and Law Enforcement, D. G. Edmunds, chairman, were accepted.

L. E. Viko reported for the Committee on Medical Service Bureau, and read conclusions of this bureau to the effect that it recommended that the Utah State Medical Association do not raise their dues for the coming year. This report was adopted.

The report of the secretary, B. E. Bonar, was accepted.

F. M. McHugh announced that the Radium Corporation of Utah had donated \$1000 each to the Latter Day Saints Hospital, Holy Cross Hospital, and Saint Mark's Hospital.

The report of the treasurer, C. R. Cornwall, was accepted.

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The following resolutions of the Necrology Committee were adopted:

In Memoriam—Archibald A. Kerr

Whereas, Death has again entered the ranks of our profession to remove from our association our friend and confrère, whom we have known and respected as a man of the highest character for years; and

Whereas, In the loss of Dr. Archibald A. Kerr the profession of medicine in Utah and the Salt Lake County Medical Society has suffered another regrettable loss; therefore be it

Resolved, That we of the Salt Lake County Medical Society formally express our sorrow in the passing of our coworker and friend, and that as a mark of that sorrow a copy of this resolution be spread as a permanent record upon the minutes of the society, and a copy of the same be sent to the widow and children of the deceased.

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A letter from the medical council of the Utah State Medical Association was read which stated that it was the unanimous opinion of the council that it was

unethical and unprofessional for any member to accept publicity in any newspaper or public journal. J. P. Kerby moved that the contents of this letter be endorsed and that the Salt Lake County Medical Society members live up to medical ethics and avoid all forms of advertising including the placing of names in hotels and apartment houses. This motion was seconded and carried.

Following a letter from the council of the Utah State Medical Association, regarding a meeting in 1933 and every third year thereafter in Yellowstone Park in association with the medical associations of Wyoming, Idaho, and Montana, Sol G. Kahn moved that the society go on record as disapproving this contemplated action. Motion seconded and carried.

W. R. Middlemiss was elected to membership.

A. C. Callister moved that the society go on record as recommending to its members that it be not mandatory on any member to subscribe to CALIFORNIA AND WESTERN MEDICINE as a part of the affiliation of the Salt Lake County Medical Society. This motion was seconded. The question was discussed by W. L. Rich and O. J. LaBarge, and was passed.

J. P. Kerby moved that an amendment to the by-laws should be made authorizing the new president to exercise his judgment in not suspending those members whose dues are in arrears. Motion seconded. L. E. Viko amended the motion to the effect that the dues of these members to the Utah State Association be paid by the Salt Lake County Medical Society. The amendment was carried 26 to 17, and the original motion was carried.

J. Z. Brown moved that the society do not renew its contract with the Telephone Directory Company. This motion was seconded and passed.

The society then proceeded to elect officers for the year 1932: E. M. Neher was unanimously elected president. C. F. Pinkerton was unanimously elected vice-president. L. E. Viko was unanimously elected secretary. Russell W. Owens and C. R. Cornwall were nominated for the office of treasurer. C. R. Cornwall was elected by ballot.

W. F. Beer and F. M. McHugh were nominated as candidates for the Board of Censors. F. M. McHugh was elected.

In his address as retiring president, F. M. McHugh urged that the members of the society stand together as a unit in all medical affairs.

J. P. Kerby moved that the outgoing officers be given a rising vote of thanks.

The newly elected president, E. M. Neher, was then escorted to the chair by W. F. Beer and T. W. Stevenson, and following his address the meeting was adjourned at 10:30 o'clock.

BARNET E. BONAR, *Secretary*.

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WEBER COUNTY

A regular meeting of the Weber County Medical Society, to which lady guests were invited, was held on December 17, 1931, at the Hotel Bigelow, with President E. P. Mills presiding.

Dr. R. L. Draper submitted a report of the Auditing Committee, signed by himself, Doctors Rich and Leslie Smith. The report was accepted by the society.

Dr. B. Rowland Lewis of the University of Utah, a guest speaker of the evening, was then introduced by Doctor Mills. His subject was "Dr. John Hall, Son-in-Law of William Shakespeare."

On suggestion of Leland R. Cowan, secretary of the Utah State Medical Society, Doctor Mills submitted the proposition of holding the 1933 meeting of the state society in Yellowstone Park in association with Wyoming, Idaho, and Montana. Those present voted in favor of the proposition.

S. W. Badcon, president, Vernon L. Ward, vice-president, William M. McKay, secretary, H. W. Nelson, treasurer, officers for the year 1932, were then introduced.

WILLIAM M. MCKAY, *Secretary Pro Tem*.

MISCELLANY

Under this department are ordinarily grouped: News; Medical Economics; Correspondence; Twenty-five Years Ago column; Department of Public Health; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the twentieth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

NEWS

San Francisco Department of Public Health Appoints Consulting Sanitary Engineer.—At a special meeting of the San Francisco Board of Health held on December 14, its members unanimously adopted a resolution requesting the appointment of Professor Charles Gilman Hyde, professor of sanitary engineering of the University of California, as consulting sanitary engineer to the director of public health of San Francisco. It is stated that this is a step forward because it initiates the formation of a bureau of sanitary engineering in the department of health which has been badly needed for some years.

California State Board of Health Appointments.—A Pacific Coast News Service dispatch of January 19 stated that Governor Rolph had appointed Dr. Edward Pallette of Los Angeles to the California State Board of Health to take the place of Dr. A. J. Scott of Los Angeles, who had resigned.

Survey Groups for Los Angeles County and City Health Departments.—A news item of January 12 printed the following: "Five business and professional men were chosen by the Board of Supervisors yesterday to work in conjunction with a similar committee recently selected by the City Health Commission to make a survey of the county and city health departments with a view to devising a plan to prevent overlapping of activities.

"The committeemen selected by the Supervisors are: Dr. John P. Buckley, past president of the American Dental Association; Dr. George H. Kress, member of the attending staff of Los Angeles County General Hospital; J. W. Charleville, city manager of Pasadena; James W. Costello, president of the Western Bakeries Corporation, Ltd., and F. F. Pellessier, Jr., of Whittier, creamery operator.

"The city's committee is comprised of Brook Hawkins, vice-president of the Winters Construction Company; Samuel H. Berch, president of the Western Dairy Products, Inc.; Martin T. Hildinger, real estate dealer; John D. Hackstac, efficiency engineer; and Fred Johnson, manager of the O. T. Johnson Corporation.

Los Angeles Mid-Winter Clinical Course in Otolaryngology.—The first Los Angeles Annual Mid-Winter Course in Otolaryngology started on January 15. Among the guest lecturers were: Georges Portmann, M. D., Professor Agrégé, a la Faculté de Médecine, Bordeaux, France; Edmund Prince Fowler, M. D., New York City, President of the American Laryngological, Rhinological and Otolological Society; Harry L. Baum, M. D., Denver, Colorado, a founder of the Denver Summer Graduate Course in Ophthalmology and Otolaryngology.

The facilities of the Saint Vincent Hospital, Los Angeles County General Hospital, Cedars of Lebanon Hospital, and other institutions were utilized. The course closed on January 28, and was followed by a meeting of the Western Section of the American Laryngological, Rhinological, and Otolological Society.

Response to the first efforts for having a mid-winter course in otolaryngology at Los Angeles were very gratifying. Physicians from practically all the Pacific Coast states were in attendance.

The Pacific Coast Surgical Association will hold its seventh annual meeting in Los Angeles and in Santa Barbara from February 23 to 27, inclusive. Clinics will be in Los Angeles February 23 to 24, and the scientific program will be given at the Santa Barbara Biltmore on February 25, 26, and 27.

The following are the officers of the association: Rea Smith, Los Angeles, president; Charles M. Fox, San Diego, first vice-president; Raymond E. Watkins, Portland, Oregon, second vice-president; Edgar L. Gilcreest, San Francisco, secretary-treasurer.

Officers for 1932 of the Los Angeles County Heart Association.—At the annual meeting of the Los Angeles County Heart Association, which was held in Los Angeles at the Good Hope Clinic December 28, 1931, the following officers were elected: John Ruddock, president; Robert Langley, secretary.

The following were appointed members of the Executive Committee by the president, Dr. John Ruddock: R. Manning Clarke, Donald Frick, Richmond Ware (also president and secretary ex officio).

Clinic in Obstetrics at New York Polyclinic.—In order to handle the increased number of patients applying for treatment, it has been necessary to open additional clinics in obstetrics and allergy at the New York Polyclinic Medical School and Hospital. The clinic in obstetrics is now held on Monday, Thursday, and Saturday from 1 to 2:30 p. m., and the allergic clinic daily from 9:30 to 10:30 a. m.

AMERICAN COLLEGE OF PHYSICIANS

San Francisco Session, April 4-8, 1932

The Sixteenth Annual Clinical Session of American College of Physicians will be held in San Francisco on April 4-8, 1932.

San Francisco Committees—William J. Kerr, general chairman.

General Sessions—S. Marx White, president.

Committee on Arrangements—William J. Kerr (chairman), Arthur L. Bloomfield, Walter W. Boardman, LeRoy H. Briggs, Ernest H. Falconer, Noble W. Jones, Russell V. Lee, H. Lisser, F. M. Pottenger, and C. L. A. Schmidt.

Committee on Clinics and Demonstrations—William J. Kerr, chairman. Ernest H. Falconer, University of California Hospital; Walter W. Boardman, Stanford-Lane Hospital; C. L. A. Schmidt, preclinical departments, University of California; Russell V. Lee, preclinical departments, Stanford University; Gordon E. Hein, San Francisco Hospital, University of California Service; Aime N. Fregeau, French Hospital; Major William C. Munly, Letterman General Hospital; Alfred C. Reed, Marine Hospital and Mary's Help Hospital; John J. Sampson, Mount Zion Hospital; John Jay O'Connor, Saint Francis Hospital; Jay Marion Read, San Francisco Hospital and Laguna Honda Home, Stanford University Service; Ernest S. duBray, Laguna Honda Home, University of California Service; Edward B. Shaw, Children's Hospital; Elbridge J. Best, Franklin Hospital; Eugene S. Kilgore, Saint Joseph's Hospital; DeWitt K. Burnham, Saint Luke's Hospital; Randolph G. Flood, Saint

Mary's Hospital; S. L. Haas, Shriners' Hospital for Crippled Children; H. Cabot Brown, Southern Pacific Hospital.

Committee on Convocation and Banquet—S. Marx White (chairman), Ernest S. Dubray, and Jay Marion Read.

Committee on Entertainment—Edwin L. Bruck (chairman), Philip H. Arnot, Herbert D. Crall, Dudley W. Bennett, A. Crawford Bost, Garnett Cheney, Amos U. Christie, Lloyd B. Dickey, William Dock, Albert E. Larsen, Carol McKenney, and Archie D. Sinclair.

Committee on Entertainment of Visiting Women—Mrs. Langley Porter (chairman), Mrs. Thomas Addis, Mrs. Herbert W. Allen, Mrs. Walter W. Boardman, Mrs. LeRoy H. Briggs, Mrs. Garnett Cheney, Mrs. Harold K. Faber, Mrs. Milton B. Lennon, Mrs. H. Lisser, Mrs. William P. Lucas, Mrs. Herbert C. Moffitt, Mrs. Philip H. Pierson, Mrs. Jay Marion Read, Mrs. Ernest H. Falconer, Mrs. William J. Kerr, Mrs. Alfred C. Reed, Mrs. John J. Sampson, and Mrs. E. B. Shaw.

Committee on Publicity—Emma W. Pope (chairman), Arthur L. Bloomfield, George A. Pettitt, and John P. Strickler.

Committee on Auditorium and Transportation—Stacy R. Mettier (chairman), Garnett Cheney, and Gordon E. Hein.

Taxis and Transportation.—Bus service is being provided for the visits to the University of California in Berkeley on Tuesday and Thursday mornings, and to Stanford University on Wednesday and Friday mornings. Buses will leave promptly at 9 a. m. on each of these mornings, returning to the headquarters by 12:30 p. m. of the same day. Arrangements for transportation may be made through the transportation desk at the time of registration.

AMERICAN COLLEGE OF PHYSICIANS' MEETING AT SAN FRANCISCO

A Letter from President White

The program for the Sixteenth Annual Clinical Session of the American College of Physicians to meet in San Francisco the week of April 4, 1932, is virtually completed. Mr. E. R. Loveland, the Executive Secretary, with offices at 133 South 36th Street, Philadelphia, will send out copies as soon as the program has been completed and printed, which will be sometime early in February.

We invite all physicians, irrespective of membership in the College, to attend this session. The program is of such a character that it will interest everyone, whether specialist or general practitioner. The medical talent of the continent has been called upon and the response is very gratifying. When a Fellow of the College has not been the one best prepared to discuss a topic, a guest has been invited and the College has arranged for his presence in San Francisco. The primary purposes of the College are the encouragement and preservation of high standards, the dissemination of knowledge within its field and the cultivation of the historic and esthetic ground in which medicine, as one of the learned professions, grows. This session will reflect the purposes and ideals thus briefly stated and will be the first to be held beyond the Mississippi River. For this reason it should have a peculiar interest for readers of CALIFORNIA AND WESTERN MEDICINE, but the interest only begins here. The session will be attended by the notables in medicine from the United States and Canada, and the program, we believe, will be the strongest yet presented.

The general sessions, attended by all, are held every afternoon, Monday to Friday inclusive, and on Monday and Tuesday evenings as well. More than sixty papers and addresses will be presented revealing the trends and covering the best of the recent work in medicine. The physics and physiology of arteriosclerosis and hypertension will be discussed by the man who has made the greatest recent contribution in this field. The practical phases of the subject will be

discussed by two able clinicians. Congenital narrowing of the aorta and pulmonary arteriosclerosis will be presented. The effect of funnel breast on the heart and circulation is studied. Among the subjects of live interest in diseases of the chest are: atelectasis and tuberculosis; the treatment of cavities; some observations on pulmonary emphysema; and the rôle of bacteria in asthma. Topics on the liver will range from the element of error in the diagnosis of jaundiced patients and a very interesting study of primary carcinoma of the liver in Chinese to the effects of the administration of glucose and insulin on the glycogen content of normal and pathological livers, and the pathology of the liver in exophthalmic goitre and the Graves' constitution.

The most modern concepts in the diagnosis of Bright's disease, nephritis and nephrosis are presented. An address on the practical applications of recent discoveries in the field of gastrointestinal physiology will summarize many years' work of extraordinary value by a master in this field. The clinical aspects of gastric secretions are discussed. The newest experimental and clinical work on the adrenal gland will be presented. Also the biological and clinical importance of ovary-stimulating substances. There will be studies of calcium metabolism and diseases of the parathyroid gland. The newest knowledge on the nature of epilepsy and its treatment appear.

There are studies on the mechanism of edema formation in disease; on leukopenia; on the action of benzol, Roentgen rays and radium on the blood and blood-forming organs; on the relation of paranasal sinus infection to disease elsewhere; on the clinical significance of the atrophic tongue and on the experimental basis for vaccine treatment of chronic arthritis with a summary of the results of treatment. Diseases peculiar to the Rocky Mountain and Coast countries will be emphasized in this general program.

The outstanding symposium of the session will bring to clinicians the results of the almost unbelievable advance in our knowledge of the involuntary nervous system. The anatomists, physiologists, and clinicians will collaborate in this extremely important presentation.

The preceding hasty sketch omits many important contributions, being given only to show the modern trend and wide range of the subjects. One evening only will be given to the history of medicine with delightful studies on the first aphorism of Hippocrates and on Utopia in Medicine.

While Monday morning will be devoted exclusively to registrations, the remaining mornings from Tuesday to Friday, inclusive, will be given to clinics and demonstrations in institutions in and about San Francisco. Dr. William J. Kerr, Professor of Medicine in the University of California Medical School, is General Chairman. The committee includes Dr. Arthur L. Bloomfield, Professor of Medicine, Stanford University Medical School, with a group of clinicians representing the various hospitals and laboratories, together with Dr. N. W. Jones of Portland, Oregon, and Dr. F. M. Pottenger of Los Angeles. The work to be exemplified in this part of the program has never been excelled in any meeting of the College. The very wealth and extent of the material precludes mention of any specific item. The fields and borderlands of medicine will be explored. The presentations will be eminently practical. There will be opportunities to study the conditions peculiar to, or of greatest importance in, this part of our country, and in addition a number of the noted clinicians throughout the country will take part. The opportunity to study at first hand the work of the Hooper Foundation for Medical Research under the direction of Dr. Karl F. Meyer would alone make attendance at this meeting worth while, but this is only one item in a program of unusual significance.

On one or two mornings, for those interested in the history of medicine in general, or of the Far West and Pacific Coast in particular, interesting exhibits and talks have been prepared. The writer of this

invitation has never seen more thorough and painstaking preparation for a profitable and delightful clinical session than that made by the San Francisco committee.

The session will be attended by Fellows and Associates of the College from the entire United States and Canada, but it is the desire of the College that the opportunity be given for every physician who desires to attend. The guest fee of \$15 includes one year's subscription to the *Annals of Internal Medicine*, the official journal of the College, in which the papers and addresses read during the session will be published.

A cordial invitation is extended to the readers of CALIFORNIA AND WESTERN MEDICINE to attend this session. Provision has been made by the local committee for entertainment of friends and members of the families of Fellows, Associates and guests at the meeting.

S. MARX WHITE, M. D.,
President.

CORRESPONDENCE

Subject of Following Letter: Communication Regarding Discontinuance of Undergraduate School of Nursing at San Francisco Hospital and Inauguration of a Postgraduate Course.

To the Editor:—I am enclosing an announcement with reference to the San Francisco Hospital School of Nursing.

I thought you might be able to give some publicity to this important change of policy in that we are making a postgraduate school of our undergraduate institution. . . .

J. C. GEIGER, M. D.,
Director of Public Health.

December 31, 1931.

Enclosure follows:

ANNOUNCEMENT OF SAN FRANCISCO SCHOOL OF NURSING

The San Francisco Department of Health has looked into the future of nursing care for the public and has decided to discontinue the San Francisco Hospital School of Nursing as an undergraduate institution.

Beginning January 1, 1932, no more student nurses will be accepted for training, and a postgraduate school will be established, with a large staff of permanently employed graduate nurses.

This decision follows a careful analysis of costs of patient care as well as of the problems of nursing education, and was made with an appreciation of the fact that a school's responsibility in the training of nurses is as great as is its responsibility to supply care to the patients of the hospital with which it is associated.

In changing the type of nursing school at the San Francisco Hospital, the first consideration has been the higher standard of service which can be furnished the patients by placing them under the care of nurses who have finished their training rather than under partially trained students.

A cost study shows that this change can be made with little if any more expense to the hospital than in the maintenance of the elaborate educational set-up now required in high-type schools of nursing. Standards for nursing education have in recent years been raised so consistently that an undergraduate school is no longer an economy. It is believed that one graduate nurse will be required for three nurses formerly in the undergraduate school, thus limiting the size of staff and simplifying housing and other administrative problems.

The Committee on the Grading of Nursing Schools has found that the number of schools and the number of graduate nurses is out of all proportion to the public demand. The Department of Health, in closing

its undergraduate school of nursing, has been mindful of the overproduction of nurses, with their resultant unemployment, and has welcomed the opportunity to assist in adjusting this economic situation.

In opening the hospital to a postgraduate school of nursing the administrators feel that a definite contribution will be afforded the community by the opportunity offered for advanced training in the special fields which are available at the San Francisco Hospital. Advanced courses in children's diseases, maternity, operating-room technique, tuberculosis, and communicable diseases, are now outlined with the development of special courses in ward administration, genito-urinary diseases, and psychiatric nursing proposed for the near future.

Advantages of the changes from an undergraduate to a postgraduate school of nursing will be: First, to the hospital by improving the nursing service to patients through having graduate-nurse care. Second, to the community by lessening the number of graduates and fitting nurses for positions in special fields where there is at present a lack of qualified material.

Subject of Following Letter: Communication from Health Officer Geiger of San Francisco on Statistics of Heart Disease.

To the Editor:—Very recently some discussion has been had with the Heart Committee of the San Francisco County Medical Society as to the interpretation of mortality statistics of heart disease, which rate, as you know, has steadily mounted to where it is to be considered the major cause of death in the United States.

As health officer, I am perfectly well aware that some of these mortality statistics are certainly not altogether truthful; therefore, the Department of Health has suggested to the San Francisco County Medical Society that they arrange a symposium where a cooperative piece of work may be done as to the morbidity of heart disease. Briefly, the plan suggested is that the Department of Health make heart disease reportable for one year, this being, of course, with the absolute cooperation of the members of the County Medical Society; a suitable morbidity card being arranged, and final analysis of this data being made as soon as possible after the completion of the one year's study. . . .

Criticisms of this idea and, most important, any suggestions as to the data that should be required on the morbidity card will be welcomed.

J. C. GEIGER, M. D.,
Health Officer.

December 22, 1931.

CODE OF ETHICS OF THE MEDICAL FEDERATION OF CUBA*

Editor's Foreword.—In this issue of CALIFORNIA AND WESTERN MEDICINE are printed some editorial comments on observations of health insurance societies in Cuba. In the light of those comments this code of ethics of the Medical Federation of Cuba may be worthy of perusal. Practically every graduate physician of Cuba belongs to the "Federación" and has signed this sealed code of ethics.

In the American Medical Association directory, 1931 edition, on page 13, are printed the American Medical Association "Principles of Medical Ethics." In the 1931 directory of the California

* For further information, see editorial in this issue of California and Western Medicine, page 116.

* The editor expresses his thanks to S. L. M. R. for aid in the translation of this code. The editor has given the words "médico colegiado" the liberal meaning which he thinks is meant.

Medical Association, page 24, will be found the "Principles of Professional Conduct" of the Medical Society of the State of New York. A comparison of these three codes is of considerable interest.

1 1 1

MEDICAL FEDERATION OF CUBA

I swear by my honor to comply always with the code of ethics of the Medical Federation of Cuba.

I swear by my honor always to respect the findings of the Medical Federation of Cuba.

I swear by my honor never to have any professional interchanges with nonaffiliated members.

Code of Ethics

Article 1.—Every licensed graduate physician and colleague (médico colegiado) is obliged decorously to exercise the profession, redounding to his prestige, consideration and respect, so as to comply with the scientific, ethical and social mission of the physician, placing the health and well-being of the patients ever above any other interest, and to enlarge constantly his scientific knowledge.

Article 2.—The graduate physician colleague must never, directly or indirectly, utilize the press—other than a medical journal—to make public the results and successes of his profession, nor announce any methods of his cures, nor guarantee results along the lines of specific medical systems, nor to extend certificates recommending particular druggists. Advertisements may make mention only of the specialty, title and professional duties of the physician, his hours of consultation, and address.

Article 3.—The graduate physician colleagues will determine their professional fees in accordance with the importance of the services rendered, and with due regard to the economic capacities of the clients; and are obliged absolutely to reject any contract or commission whatever, or recompense of any character in division with any person, whether physician or not.

Article 4.—No graduate physician colleague will accept the offer of an appointment, commission or charge, whether remunerated or not, to relieve another physician from obligation, without a previous interview in which he has obtained acquiescence; and, in case of disagreement, without the approval of the medical college group of which he is a member.

Article 5.—No graduate physician colleague may visit a patient that is in the care of another graduate physician colleague, without previous authorization of the same, excepting in cases of urgency, when the assisting physician must inform his colleague as quickly as possible of the fact.

Article 6.—Every graduate physician colleague is obliged to combat with all means at his command any illegal exercise of the profession; informing the medical college group of which he is a member of any such cases that come to his knowledge, whether practiced by individuals foreign to the profession or by persons who, although having a professional title, are not legally authorized to practice medicine.

Article 7.—The graduate physician colleagues are compelled to communicate in writing to the medical college group in which they are registered whatever illicit act comes to their knowledge, practiced by any physician in the exercise of his profession, and will bring all the proofs obtainable referring to the case.

Article 8.—The graduate physician colleagues are obliged to keep inviolable the secrets obtained in the exercise of their profession, unless these be of such a character that they must needs interfere as skilled practitioners, in questions of crime, or if their medical skill is put in jeopardy. If the honor, life and interest of any third person be imperiled through the protection of such a medical secret, or if the anticipated

result of the interested one be not realized, then it becomes a matter of discretion on the part of the physician whether to safeguard or not any longer such a secret.

Article 9.—Every graduate physician colleague in the discharge of a matter of state, province, municipality, or private institution nature is obliged in the exercise of his commission to observe the greatest circumspection with his affiliated colleagues without imperiling administrative discipline, and must try, in speech and writing, not to use phrases that might jeopardize or lower in any way professional dignity.

Article 10.—The graduate physician colleagues are obliged to comply strictly with the rules of professional etiquette in accordance with those of the medical college groups of which they are members.

[Seal]

(Signed) _____,
Member Federación Médica de Cuba.

LIMITATIONS OF CORPORATIONS IN PRACTICE

The Attorney-General of the State of Washington recently rendered to the Director of Licenses of that state an opinion in which he outlined the limitations of the rights of corporations, as regards the practice of the professions of law, medicine, and dentistry.

The opinion of Attorney-General John H. Dunbar is here presented for its general reference value. It is as given below:

1 1 1

Hon. Charles R. Maybury,
Director of Licenses,
Olympia, Washington.

Attention: Mr. George L. Berger, Assistant Director.

Dear Sir:

We have your letter of November 28, which reads in part as follows:

"We would greatly appreciate an opinion as to whether or not it is a violation of the optometry law for an unlicensed person or a corporation to advertise optometry without stating the optometrist's name, although they may have a licensed optometrist in the place of business. . . ."

Section 10147, Rev. Comp. Stat., reads as follows:

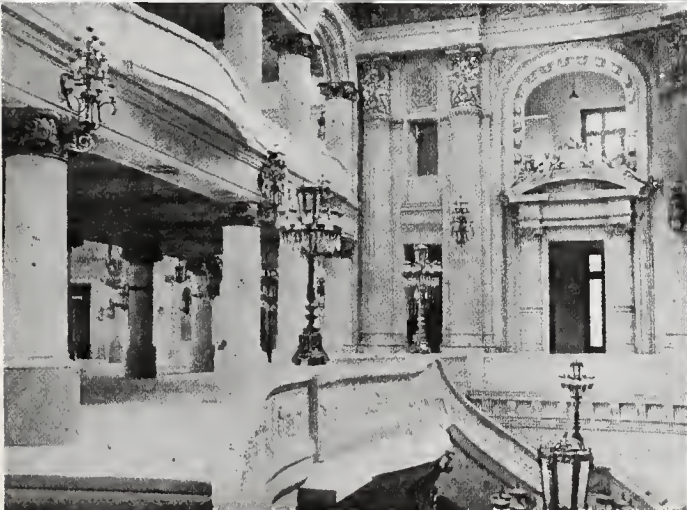
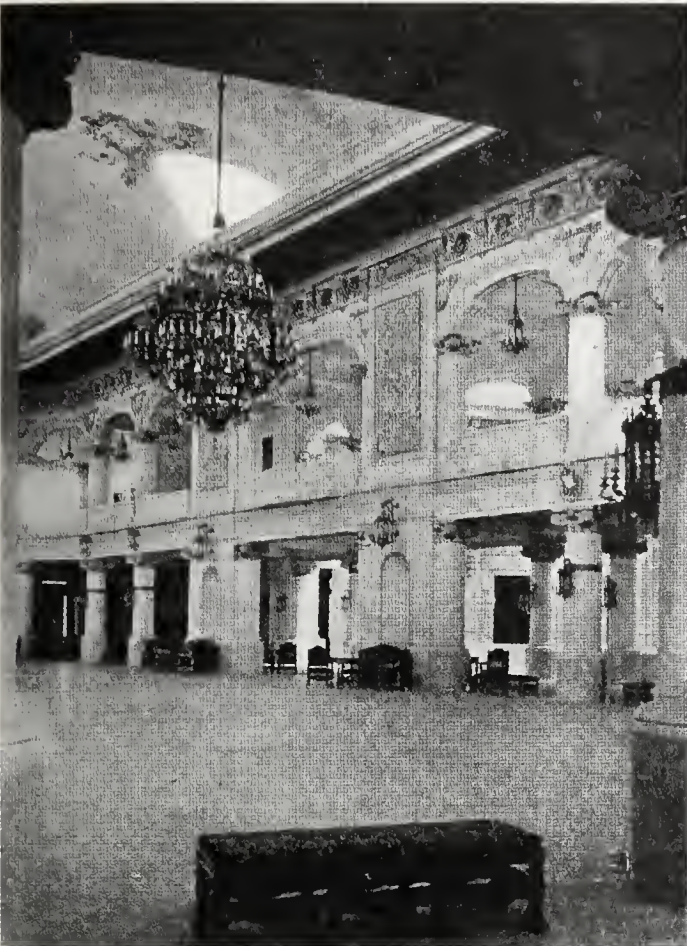
"Any person shall be deemed to be practicing optometry within the meaning of this act who shall in any manner, except as provided in Section 10159, first, display any sign, circular, advertisement or device purporting or offering to in any manner examine eyes, test eyes, fit glasses, adjust frames or setting himself or herself forth as an optometrist, optician, specialist, optical specialist, eyesight specialist or refractionist, with intent to induce people to patronize himself, herself, or any other person; second, who shall make in any manner a test or examination of the eye or eyes of another to ascertain the refractive, muscular or pathological condition thereof; third, who shall in any manner adapt lenses to the human eye for any purpose either directly or indirectly."

Section 10148, Rev. Comp. Stat., makes it unlawful for any person to practice optometry without a permit.

Section 10150, Rev. Comp. Stat., specifies the requirements and qualifications necessary to entitle a person to a permit.

Section 10159, Rev. Comp. Stat., provides that the act relating to optometry shall not apply to a regularly qualified oculist or physician, nor to persons selling or offering to sell spectacles or eyeglasses as regular merchandise without pretense of adapting them to the eyes of the purchaser.

The word "person" as used in Section 10147 includes corporations. Section 146, Rev. Comp. Stat. It is well settled that a corporation cannot practice any of the learned professions. The rule is well stated in Corpus Juris, Vol. 14A, page 296.



ILLUSTRATIONS OF THE NEW SOCIAL PALACE OF THE CENTRO ASTURIANO DE LA HABANA

Top—A view of the Festival Salon. Center—Directors' Meeting Hall. Lower—Top of the Stairway of Honor which embraces all the traditional beauty of Spanish architecture. (For explanation of these illustrations, see editorial in this issue, page 116.)

Top—Another view of the Festival Salon. Center—Buffet in classical Spanish style, with its panels of artistic glazed tiles of Tolavera, showing scenes from Don Quixote. Lower—The Social Palace—"Palace of Asturias."

"It is not within the power of a corporation to carry on the business of practicing one of the learned professions, among which may be mentioned specifically law, medicine, or dentistry, or to hire practitioners to carry on such business for it, although practitioners may be hired in some states under local statutes providing that it shall be unlawful for any person to practice a particular profession without first being licensed to do so. This is the established policy of the states generally, independently of statute, as applied to the construction of charters and general statutes governing the organization and powers of business corporations. . . ."

Our supreme court in the case of *State ex rel. Lundin vs. Merchants Protective Corporation*, 105 Wash. 12, held that a corporation could not practice law in this state. In that case regularly licensed attorneys were employed by the corporation to do the actual legal work. However, the contract with the client was between the corporation and the client and not between the attorney employed by the corporation and the client. The court quotes from 2 R. C. L. 946, as follows on page 17:

"Since, as has been seen, the practice of law is not a lawful business except for members of the bar who have complied with all the conditions required by statute and the rules of the courts, and as these conditions cannot be performed by a corporation, it follows that the practice of law is not a lawful business for a corporation to engage in. As it cannot practice law directly, it cannot do so indirectly, by employing competent lawyers to practice for it, as that would be an evasion which the law would not tolerate."

A corporation is purely a creature of the statute and can only be formed for such purposes as provided for in the statute. There is no statutory authority for the formation of a corporation to practice any of the learned professions. In our opinion, optometry, while possibly not requiring the same degree of learning as some of the learned professions, for example, medicine and surgery, still it must be classed as a learned profession. A certain degree of learning is required before a license will be issued. A corporation, not having a mind but being an artificial being, could not qualify for a license. We therefore must conclude that a corporation cannot practice optometry in this state.

We then come to the question of whether or not a corporation which advertises to furnish optometry service by regularly licensed optometrists is practicing optometry. Under the strict construction of Section 10147, Rev. Comp. Stat., this must be answered in the affirmative since the statute defines practicing to include the display of "any sign, circular, advertisement, or device purporting or offering to in any manner examine eyes, test eyes, fit glasses, adjust frames or setting himself or herself forth as an optometrist, optician, specialist, optical specialist, eyesight specialist, or refractionist, with intent to induce people to patronize himself, herself, or any other person. . . ." However, regardless of this statute, a corporation can only act through its officers and agents. If a corporation could furnish optometry services by employing regularly licensed optometrists, it could just as well perform dental services by employing regularly licensed dentists, and just as well perform medical services by employing regularly licensed physicians and surgeons, and even legal services by employing regularly licensed lawyers. The client or patient would be dealing with the corporation and not with the practitioner. The right to practice any of these professions is in the nature of franchises from the state conferred only for merit. No one can practice them until they have complied with certain qualifications which, obviously, a corporation cannot comply with. We believe the same reason would apply to the case of a corporation practicing optometry through agents who were regularly licensed optometrists as was used by our supreme court in the case of a corporation practicing law through regularly licensed lawyers.

The question, then, arises whether or not a person not a corporation who is not a licensed optometrist can own, run, or manage an office where optometry

is practiced by regularly licensed optometrists. In the case of *State vs. Brown*, 37 Wash. 97, it was held that the statute which required a license before any person could lawfully own, run or manage a dental office as distinguished from the practice of dentistry was unconstitutional. In that case the owner was not prosecuted for practicing dentistry as defined by the dental law, but was prosecuted because he did not have an owner's, operator's, or manager's license. The court held that the statute requiring such a license was not a reasonable health requirement and, of course, this is the only ground on which the constitutionality of such a statute could be sustained. It therefore reached the conclusion that the statute was unconstitutional. This case was decided in 1905. However, it is very probable that the Supreme Court would follow it and it is possible that under the holding in this case the court would hold that the provisions of Section 10147, *supra*, which make it unlawful for a person who is not a regularly licensed optometrist to advertise for optometry service to be performed by a regularly licensed optometrist, would be unconstitutional. However, the statute has been in force for a number of years and its constitutionality has not been questioned, and we therefore must take the position that it is constitutional until the court holds otherwise.

We therefore conclude that a corporation cannot practice optometry in this state and that the advertising by a corporation for optometry services to be performed by a licensed optometrist employed by the corporation is practicing optometry as defined by the statute. We further advise that an individual may own, manage and operate an office where optometry is practiced by regularly licensed optometrists employed by the owner, but that any advertising done by him in connection with this business does, under the statute, constitute practicing optometry and unless this owner is a regularly licensed optometrist any advertising must be done in the name of the person properly licensed.

Yours respectfully,

JOHN H. DUNBAR,
Attorney-General.

TWENTY-FIVE YEARS AGO*

EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Volume V, No. 2, February 1907

From some editorial notes:

Needless Anxiety.—The Appellate Court, when it so gratuitously and intelligently reversed the decision of the Supreme Court in the case *ex parte Gerino*, and in the *Arwine* case, stated that our Medical Practice Act was unconstitutional, not only did a rather stupid thing, but also made a lot of trouble for the secretary of the state society. Of course, the Board of Examiners promptly appealed the *Arwine* case to the Supreme Court, and equally, of course, the Supreme Court as promptly reversed the Appellate Court and sent the case back for a rehearing. What new foolishness the Appellate Court may subsequently be guilty of, no man can say; for any judicial body that will go out of its way to display its ignorance by calmly reversing a decision of the Supreme Court may be expected to commit almost any edifying "stunt" in mental gymnastics. . . .

Osteopathic Physicians.—This is not the case, however, with the law passed in 1901 regulating the practice of osteopathy. That law has recently been declared unconstitutional. (Superior Court, Los Angeles; *W. P. James, J.*, December 28, 1906.) The law

* This column strives to mirror the work and aims of colleagues who bore the brunt of state society work some twenty-five years ago. It is hoped that such presentation will be of interest to both old and recent members.

authorized the board to issue a certificate to any osteopath presenting a diploma from a college of osteopathy recognized by the Board of Examiners, but did not define *what qualifications a college should have in order to be so recognized*. The decision specifically states that not a single portion of the act is in question, but the entire act, and it is declared null and void. As a result of this, the osteopaths have applied to the legislature now in session for a new law; in fact, at least two bills have been introduced up to the time of writing and we understand that a third is to be presented. Now this opens up a pretty wild field. It is a well-known fact that whatever the expressed intentions of the osteopath may be, when he is licensed to practice osteopathy he really begins to practice medicine. He duhs himself an osteopathic physician. . . .

Public Health Legislation.—The legislature is, as you are doubtless painfully aware, now in session. There will be numerous bills affecting public health matters introduced; indeed, quite a goodly number have been introduced at the time of writing. Some of these are good and should receive our support; some are bad and vicious and should be rejected. There will also be a number of bills relating to medical license and to the licensing of osteopaths, naturopaths, neuro-paths, etc. All of these bills will be very carefully studied by our attorneys and by our Legislative Committee, and the secretary of the state society will keep the component societies in touch with what is going on. Our profession has always occupied a too retiring attitude in regard to these matters of public health. We have a very considerable potential influence, and it is high time we woke up and used it for the protection of the public in matters in which we have knowledge and they are ignorant. . . .

From the "Address of the Retiring President," Dr. J. Lambert Asay, Santa Clara County Medical Society, December 1906.

The organic law of your society compels its officers to submit a report of their work upon the ending of their official term. It also makes it mandatory upon your president that he shall contribute matters of interest which have occurred during his administration and to offer such advice as in his judgment he may think proper for your own guidance and the welfare of your organization.

From an article on "Operations on the Thyroid Gland" by Wallace I. Terry, M. D., San Francisco.

Operations on the thyroid gland may be demanded on account of: First, thyroiditis; second, tuberculosis of the thyroid; third, tumors and cysts of the thyroid; fourth, goiter. Of these, by far the most important is goiter, and the greater part of this paper will be devoted to a brief consideration of the surgical features presented by it.

From the "President's Annual Address—Los Angeles County Medical Association," December 21, 1906, by Fitch C. E. Mattison, M. D., Pasadena.

Our aim should also be to secure legislation looking to the better control of our greatest source of danger, in comparison to the value of a source of food supply. Reference is made to a better control of dairies and dairy products.

The Pasadena branch of this society took up this work some three years ago, and at present has ordinances which compel all dairies to have a license. The fees from this license pay for the employment of a dairy inspector and the tubercular testing of all cows in such dairies. The Los Angeles County Medical Association is now prepared to enlarge upon this work, and within a short time it should take up the work of certification of milk by a commission appointed from our members. . . .

From the "Proceedings of the San Francisco County Medical Society," Meeting of December 11, 1906.

Discussion was on a paper by Dr. William F. Cheney, "Sarcoma in Infancy":

Doctor Porter: I think we should all thank Doctor Cheney for his lucid exposition of this case. I have seen one such case, but that was a number of years ago, and different from Doctor Cheney's, being sarcoma of the left kidney, upon which side the disease is more usual than on the right. . . .

Doctor Kreutzmann: About ten years ago I demonstrated a similar case to the Academy of Medicine in three different states. . . .

Doctor Rixford: As several of those present have reported cases observed by them, I would like to add that I can remember to have seen at least two cases of sarcoma of the kidney in children, one with Dr. Max Magnus of this city, and one in the service of Doctor Seibert in New York. . . .

Doctor Krotoszyner: I have seen two similar cases, although neither diagnosis could be verified. . . .

Doctor Moffitt: I have seen two of these tumors. One patient was operated upon by Doctor Tait, who removed the tumor, and, just as in Doctor Cheney's case, the child recovered perfectly and in a short while came back with a tumor as large as at the start. In the other case no operation was done. . . .

Doctor Stillman: I have seen but one case of sarcoma of the kidney in my practice. This case was not confirmed by operation; it was too far gone.

Doctor Cooper: I desire to emphasize some of the points alluded to by Doctor Moffitt. . . .

Doctor Somers: From a surgical standpoint, in the treatment of the case presented by Doctor Cheney, the only problem presenting itself was as to the nature of the incision. . . .

DEPARTMENT OF PUBLIC HEALTH

By GILES S. PORTER, M. D.
Director

Typhoid Carriers of 1931.—A total of twenty-one typhoid carriers has been found in California during the present year. Seventeen of these are casual carriers and four are convalescents, who continue to harbor the typhoid organism following recovery from attacks of the disease. Eleven of the twenty-one carriers were discovered by health officers of the various cities of California. Two were discovered by county health officers and the remaining eight carriers were discovered by the State Department of Public Health. A total of forty cases of typhoid fever which occurred this year has been traced to these carriers. The largest number of cases for which a single carrier was responsible is eighteen. These occurred on a raw-milk dairy route. The carrier was a milker on the dairy. Seven of these carriers are housewives; five are cooks and kitchen helpers; one is a food demonstrator; and one is a practical nurse. All are under the supervision of the local health officer and have agreed to abide by the regulations which are designed to prevent the appearance of further cases in individuals with whom the carriers may come in contact.

Spotted Fever Vaccine Available.—Surgeon R. R. Parker, special expert in charge of the United States Public Health Service Rocky Mountain Spotted Fever Laboratory of Hamilton, Montana, has announced that the first supply of Rocky Mountain spotted fever vaccine for the season of 1932 will be available for distribution about February 1. This vaccine is sent out from the laboratory at Hamilton and is forwarded directly to physicians who may apply for it. There are a few requisites that physicians who desire the

vaccine should comply with. They may be enumerated as follows:

1. Requests for vaccine should be addressed to the Officer in Charge, United States Public Health Service, Hamilton, Montana.

2. Each request for vaccine should specify either the number of persons to be vaccinated or the number of cubic centimeters needed on the basis of four cubic centimeters to the person.

3. Vaccine is furnished to physicians without charge and the fee for administration should be nominal.

4. The vaccine is expensive to manufacture and amounts requested should be limited to use which can be foreseen.

5. Reports received at the Hamilton station suggest that if vaccine is administered soon after a bite by an infected tick a considerable amelioration of symptoms and shortening of the course of infection may result. Physicians will, therefore, be justified in recommending the taking of the vaccine by tick-bitten persons as soon as possible after the bite is received.

6. Therapeutic use of the vaccine after onset of symptoms is not recommended. In sections where the less fatal types of infection occur, some physicians have so used it with supposed good results, but the difficulties which prevent certainty on this point can be readily understood. Results in the highly fatal Bitter Root Valley cases have suggested that in the more severe type of the disease its use may even be harmful.

7. It is specially requested that the officer in charge of the Hamilton laboratory be advised of any cases of spotted fever which may occur in vaccinated persons and that as detailed a clinical record as possible be kept of such cases.

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA

By CHARLES B. PINKHAM, M. D.
Secretary

News Items, February 1932

On January 15, Governor Rolph reappointed as members of the Board of Medical Examiners, for a term ending January 15, 1936, Dr. P. T. Phillips of Santa Cruz, who has served continuously since 1915, and Dr. C. B. Pinkham of San Francisco, who has served continuously since January, 1913.

A card bearing the postmark of San Francisco, December 8, 1931, recently received, brought the following printed message:

"First and last notice to licensed
Chiropractors

"Doctor—Following the meeting of the San Francisco County Progressive Chiropractic Association, which will be held at the Sir Francis Drake Hotel at 8 p. m., Wednesday, December 9, 1931.

You will be told how to get a full physicians and surgeons' certificate. Don't fail to be there. Regrets have no cash value.

Dr. Lionel H. Lyons, D. C., D. P."

"Indictments charging an Alameda physician and three war veterans with defrauding the United States Veterans' Bureau through false affidavits were returned by the Federal Grand Jury yesterday. Dr. J. R. Vasco of Alameda and Elmer R. Johnson, veteran, were accused of conspiracy in the first indictment. It is alleged that Doctor Vasco executed, and Johnson used, an affidavit falsely asserting that Johnson applied to the physician in 1925 and was found

to have tuberculosis. Johnson, it is alleged, never consulted Doctor Vasco until 1927 . . ." (San Francisco *Examiner*, December 30, 1931).

"Testimony of W. O. McClaine, disabled war veteran, that he purchased a prescription for morphin from Dr. Francis Collier, 72-year-old Glendale physician, in Municipal Court yesterday, resulted in Doctor Collier's being held under \$2500 bail for trial on a charge of violating the State Poison Act . . ." (Los Angeles *Times*, January 12, 1932).

Reports relate that Frank Davidson, D. O., on December 4 in the Superior Court of Los Angeles pleaded guilty to a charge of alleged sale of morphin and was given six years' probation, one of the requirements being that his license to prescribe narcotics shall be revoked and that he shall not have in his possession narcotics of any kind during the six-year period.

The records show that Joseph Dye, licensed barber, on December 9 in the Municipal Court of Los Angeles, pleaded guilty to a charge of violation of the Medical Practice Act and was sentenced to pay a fine of \$100 or serve fifty days in the city jail, sentence being suspended for six months on condition that the defendant within twenty-four hours change the sign in front of his shop reading, "We cure neuralgia and warts—no charge for neuralgia."

"Accused of issuing hundreds of morphin prescriptions to drug addicts, Dr. Alexander Eisner, fifty-four, physician, was arrested last night in his offices at 257 South Spring Street, and jailed on a charge of violating the State Poison Act" (Los Angeles *Illustrated Daily News*, December 31, 1931).

"Dr. A. E. Hunt, Riverside chiropractor, was found guilty of a technical violation of the California Medical Practice Act yesterday in Justice Court and fined \$50 by Justice Guy Garner. The fine was suspended. Doctor Hunt was accused of having signed a newspaper advertisement 'Dr. Hunt' without adding 'Chiropractor,' as required by law. The advertisements complained of had 'Iradiagnostician' following his name, according to testimony . . ." (Riverside *Enterprise*, December 18, 1931).

"Dr. William Ivanhoe Kinsley, four times unsuccessful candidate for mayor of San Diego and once candidate for Lieutenant-Governor of California, today began serving a three years' sentence for violation of the State Poison Act. Doctor Kinsley, convicted of illegally dispensing narcotics several months ago, appealed his case. The Appellate Court last week upheld the conviction and Kinsley was arrested by members of the sheriff's office Friday night. A part of his sentence will be spent on the county road gang, the sheriff's office announced" (San Diego *Sun*, January 2, 1932). (See California Appellate Decisions, Vol. 67, No. 2757, December 5, 1931, page 973.)

"Dr. J. J. Ritchie, wealthy Tujunga chiropractor (licensed drugless practitioner), convicted recently on 'grape skin' evidence of a hit-and-run charge, today was denied probation and sentenced to serve one year in the county jail. Doctor Ritchie was convicted before Superior Judge Fletcher Bowron several weeks ago on a charge of striking with his automobile Verona Smith in Tujunga, seriously injuring her and with failing to stop and render aid" (Pasadena *Post*, December 7, 1931).

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CHRONIC POLYARTHRITIS—ITS GROUP TREATMENT*

By REA SMITH, M. D.
Los Angeles

DISCUSSION by James T. Watkins, M. D., San Francisco;
Rodney F. Atsatt, M. D., Santa Barbara.

THIS discussion of group treatment of arthritis deals entirely with that class of patients who have multiple joints affected chronically, and ordinarily known as the atrophic, the hypertrophic, or the chronic infectious types of arthritis.

The routine examination of teeth, tonsils, pelvic organs, and the prostate for acute and single joints has become general practice and, of course, always should be done in chronic cases; but the attempt at relief of the chronic multiple arthritis by the removal of tonsils and teeth or the massage of the prostate has been very disappointing.

INTESTINAL ORIGIN

We start with the premise that arthritis of the type under discussion is of intestinal origin. Whether it be a bacterial toxin or metabolic end-product, due to the bacterial digestion in the colon, makes very little difference, to my mind, in determining a rational treatment. We place the blame upon the ileocecal coil, which fails to function properly. With the slowing of the stream in this region, a change takes place in the relation of the different elements of the flora, and with this change a poison develops which results in chronic inflammation of the joints. The most frequent pathologic change in the right iliac fossa accompanying arthritis is a toneless, blue cecum, which fails to empty. This condition (the atonic cecum) has been treated surgically by removal, side-tracking, plication, and fixation, the procedure depending upon the operator's own idea of the lesion with which he was dealing. Of these types of treatment, removal has been attended by more immediate risk to the patient, but has produced the best symptomatic results. However, we feel that removal or side-tracking is rarely necessary, and that fixation or plication too frequently fails to relieve the condition for which it is done.

Harvey¹ outlines four main subdivisions in the journey which the cecum makes from its inception to its final lodgement in the right iliac fossa, namely, *migration, rotation, descent, and fixation*.

"In the fifth week of fetal life the primitive gut is attached to the umbilicus; the cecum beginning to

show as a bud on the caudal portion of the gut. As the liver at this stage rapidly increases in size, the bowel is pushed out of the coelum into the umbilicus. Next the relative increase in size of the body cavity permits the return of the gut. The small intestine is the first to return, the large bowel follows. The junction of the small bowel with the large is forced by the small intestine into the upper right quadrant, and at this stage the small intestine enters the large from the right and above. This ends the migration.

"The next stage is that of *rotation*, resulting in the entrance of the small bowel on the inner side, or from the left and below.

"*Descent* starts at this point, and in the latter months of fetal life and first month after birth the growth of the organ carries it and the ileocecal valve into the lower right quadrant.

"*Fusion* of the various mesenteries results in the position which is termed normal in the adult life. It is well to note that the descent and fusion are relatively late stages in the developmental cycle. Studies in comparative anatomy would indicate that fusion is doubtless a result of the assumption of the erect posture of mankind, and it is just to suppose that on the success of these last two processes will depend to a considerable extent the ability of the bowel to function properly."

INTESTINAL MECHANISM

The external longitudinal muscle fibers of the colon are gathered into three distinct longitudinal muscular bands, which lift the cecum many inches in a so-called normal ascending colon, pulling from the first fixed point, the hepatic flexure, and are largely concerned in the normal mechanism of emptying the cecum.

The intestinal wall carries within itself the mechanism essential to peristalsis. The law of peristalsis of Bayliss and Starling was worked out experimentally on a dog, with a balloon in the small intestine attached to a manometer. It was demonstrated that pinching the intestine just above the balloon caused a cessation of peristaltic activity and a dilatation of the intestine from eight to twelve inches below the pressure; that pinching of the intestine behind the balloon caused a spasticity and great increase in peristalsis ahead of the pressure. Our observation reverses this process in the colon. In other words, pressure upon a ganglion contained in the wall of the colon causes dilatation behind the spasticity in the front. This is our conception of the production of the thin-walled, blue atonic cecum. With a mobile cecum and ascending colon, due to faulty fusion, the terminal event in the embryologic cycle, we have the ideal condition for the development of a long chain of events. Beginning with loss of tone, due either to advancing years, a long strain or a long physical illness, we have a loss of the lumbar curve, which is the shelf on which the normal cecum lies. With the loss of

* Read before the General Surgery Section of the California Medical Association at the sixtieth annual session, San Francisco, April 27-30, 1931.

the lumbar shelf, we have a tendency of the cecum to prolapse. Nature in her effort to lift up a prolapsing organ starts the growth of a membrane at the site of the right colic artery on the mesenteric side, which attaches the colon tightly to the side wall by a reduplication of the peritoneum. (This was first described by Jackson many years ago and is generally known as "Jackson's membrane.") As this attachment becomes tighter, the colon is rolled to the right and twisted, the prolapsing heavy cecum swings forward and to the left, exaggerating the twist. This twist so pinches the intestinal wall containing Auerbach's plexus that cecal dilatation with lack of peristalsis follows, and a spastic colon forward from the point of pressure develops. This paralysis of the cecal muscular walls, due, as we think, to plexus pressure, is at first intermittent, occurring when the patient is erect and disappearing when prone, making it easy to miss, either in routine x-ray examination or on the operating table.

We feel that here we have the formation of a vicious circle. As the cecum becomes heavier the strain increases at its point of fixation, a pericolic inflammation due to strain tightens the band, so that eventually the obstruction may become anatomical as well as physiological. There is often a retrocecal appendix, in many cases an undescended appendix which draws the cecum sharply up to the right, so that that part of the intestine which appears to be cecum in the x-ray study is really the middle of the ascending colon. This, the retrocecal appendix, is usually included in the adventitious attachments of the ascending colon.

Actual mechanical fixation of any part of the cecum or ascending colon interferes with the direct pull on the longitudinal bands from the normal fixed point at the hepatic flexure, and so prevents the lifting of the cecum.

CLINICAL BASIS FOR VIEWPOINT

This theory is based largely on deductions from clinical observation at the operating table and in the x-ray laboratory. We have demonstrated many times that this toneless cecum, unhaustated, dilated, and thin-walled, appearing to have no muscle, is capable of an immediate return in color, thickness and peristaltic activity. This immediate return of peristalsis upon removal of the plexus pressure must disprove the theory of Lane that the cecum has become toneless through atrophy of muscle from hydrostatic pressure, and the theory that the muscle has atrophied through trophic changes from long toxemia. Also this disproves the theory of ordinary anatomical intestinal obstruction in the ascending colon. For in all parts of the intestinal tract a simple partial anatomical obstruction gives rise to increased peristaltic activity and hypertrophy behind, rather than atony and dilatation.

With the colon pulled tightly to the left, the assistant holding the flexure in one hand and the cecum in the other, the reduplicated peritoneum

is divided with a sharp knife at the white line, which marks its junction with the parietal peritoneum, the ascending colon immediately becomes straight. The edges of the longitudinal incision in the peritoneum are separated four or five inches by the rolling out of the colon, which has been compressed over the right kidney. The cecum immediately draws up, regains its pink color, and contracts when pinched between the gloved finger and thumb. We plant in this denuded area a free omental graft, carefully stitching the omental edge to the edge of the peritoneal incision. Interposition of tissue apparently prevents reformation of the constricting membrane, as we have never reoperated one for adhesions in a series of about three hundred cases scattered over a period of twelve years.

These typical cases, with the mid-portion of the ascending colon rolled to the right and attached to the parietal peritoneum, would seem ideal for cecal fixation to prevent descent and twist.

We have been unable to find a method of fixation which may not defeat its own object by interfering with peristaltic waves which are necessary for the emptying of the cecum, and prefer to reproduce the mobile cecum and depend upon external support to prevent the band from reforming.

Our experience has taught us that the prolapsed cecum is comparable to the prolapsed stomach—it will empty from any position if the whole organ prolapses and if peristalsis is not interfered with by some other cause than position.

CECAL STASIS

The clinical manifestations of cecal stasis are varied and far-reaching. We proceed on the theory that chronic polyarthritis is caused by the absorption of bacterial toxin or improper metabolic end-products due to an unbalanced ileocecal flora dependent upon an ileocecal stasis, with an occasional shower of bacteria from the same source. We have found that it is almost impossible to change the flora to a normal relationship between the Gram-negative and the Gram-positive bacteria in the face of a mechanical cecal block. We have found, also, that after removing the block, the same dietary treatment, based upon the bacterial examination of the stool, which failed to influence either the flora or the symptoms before operation will slowly change the flora back to normal, and the disappearance of the pain, stiffness, and contraction of the arthritic joints goes hand in hand with laboratory reports upon the flora. This, however, has taken from fourteen months to two years and has been a long pull for both the patient and the doctor, and has necessitated constant observation of the patient.

ROUTINE EXAMINATION

The routine examination and treatment which we have developed is somewhat as follows:

First.—We first investigate and clear up the ordinary sources of focal infection, such as teeth, tonsils, sinuses, and pelvis;

Second.—We use gastro-intestinal x-ray for mobility and motility of the intestinal tract, especial attention being given the ileocecal coil;

Third.—We place the patient on a balanced diet for forty-eight hours so that we may maintain as far as possible the same conditions to have a standard for comparison, and have a stool smear made of a freshly collected specimen on the morning of the third day.

If the stool examination shows an unbalance on the Gram-negative or Gram-positive side, and the x-ray has shown no gross pathology, we institute a medical regimen designed to restore a normal intestinal flora. We attempt to restore the lumbar curve; fit an abdominal belt; have patients sleep with the shoulders low and encourage the cecum to stay up to prevent the paraysis by twist. Our experience has taught us that it is a waste of time to try the medical regimen in the face of a distinct cecal block and prolonged stasis. We do the surgery first in these cases and then start the same medical treatment as an after-surgical treatment.

The Schellberg apparatus with which the tube can easily be passed to the cecum, the colon thoroughly washed and acidophilus culture implanted into the cecum has been very useful in restoring the muscle tone to the bowel and insuring elimination and also in more rapidly changing the flora.

THE RÔLE OF INTESTINAL FLORA

The recent work of Dorst and Morris on "Bacterial Hypersensitivity of the Intestinal Tract—Its Treatment with Autogenous Vaccine and Sodium Ricinoleate" gives us our first real hope of having a definite procedure with which to combat the toxins from the intestinal tract.

The greatest problem has been to shorten the period of time necessary to restore the flora to normal after adequate drainage of the bowel has been established, and to relieve these patients of their toxic load. I feel, however, even if it should be possible to detoxicate the intestinal contents and to desensitize the patient with vaccine, it is still necessary, in order to obtain a permanent result, to restore bowel function and eventually restore normal relation between the various elements of the intestinal flora. When the stool has become normal and the joints have become cold these patients need corrective procedures. In this state any type of operation or manipulation can be done without reaction, but it is necessary to be very careful to be sure that the disease is quiescent before starting any reconstructive work. The joints that have given the greatest difficulty in getting motion have been those deliberately fixed by plaster casts, upon the assumption that arthritis was an incurable disease and that a straight leg, stiff, was better than a bent one.

GROUP SUPERVISION ESSENTIAL

It is impossible, as you can readily see, for any one man to carry on this regimen with a group of patients. It is almost necessary to have a patient in an institution equipped with a large modern bacteriological laboratory; an orthopedic

department; a dietary department; an x-ray department; a physiotherapy department, including a Schellberg apparatus; an operating room—all manned by a staff trained in the special direction of each of these departments.

There are many metabolic clinics at the present time scattered over the country for the treatment of chronic arthritis, but so far as I know, none of them combine routinely a thorough gastro-intestinal examination and abdominal surgery, when it is indicated, as part of their routine treatment. In my opinion the disappointment will be greatly lessened when these two procedures are added to the generally accepted routine treatment of these patients.

1215 Wilshire Medical Building.

REFERENCE

1. Payne, R. A., and Trahar, F. C.: Developmental Rests in Cecum and Ascending Colon and Their Röntgen-ray Diagnosis, *Am. J. Röntgen*, 8:643, 1921.

DISCUSSION

JAMES T. WATKINS, M.D. (909 Hyde Street, San Francisco).—I shall not, in the very few minutes at my disposal, attempt to debate the debatable questions in Doctor Smith's interesting paper.

In the very meager synopsis of Doctor Smith's paper, upon which I must predicate my remarks, this sentence attracts me: "No one system of treatment cures on account of the many elements involved; necessitating routine combination of radiology, laboratory, abdominal surgery, medical treatment, diet, and physiotherapy, followed by expert orthopedic procedure to restore function to crippled joints after the active process has subsided." Now the only reason that I can think of why Doctor Smith should have said that all other treatment should be followed by orthopedic procedure must be that he does not get patients in the earlier stages of the disease. As a matter of fact, you can do vastly more in preventing deformity than you can in correcting deformity which has already been established. I think it cannot be brought home too forcibly to the medical attendant that the obligation and responsibility is his to see to it that these persons early in their disease are made to maintain those postures which make for maximum efficiency of the individual joints and of the organs of the body as a whole.

There is no chance for me in these four or five minutes to debate this question fully. I can only assert dogmatically that these chronic arthritides, which are nearly always of the so-called "atrophic type," occur in individuals who are regularly congenital enteroptotics; they have throughout the posture of fatigue, round shoulders, acutely hollow backs, sloped ribs, narrow intercostal angles, and the like—an attitude in which the lungs are not properly aerated, the heart working in a restricted pericardial area, the large bowel being suspended in a loop, the stomach, instead of lying in a frontal plane, hanging in a more or less perpendicular one.

The early-stage treatment of these individuals implies rest and raising their resistance by all the means at our command, one of which is getting the body gradually into that position in which its organs are known to function best.

Where you have an arthritic spine the tendency is for these patients gradually to lean forward more and more, exaggerating their curves, in which position they ultimately become stiff.

Where you have to deal with involvements of the upper extremity, experience has taught us that the shoulder should not be maintained in the position which obtains when you hold your arm in a sling. It should be supported on sandbags in ninety degrees of abduction, and full external rotation. You get a minimum of contraction in the soft parts in this way. If there is danger of the shoulder becoming anky-

losed, a very rare condition, it should be maintained in seventy degrees of abduction, forty-five degrees of forward flexion, and with the thumb in the mid-position.

The elbow is best maintained in light plaster of paris gutters, well padded, fully extended at night. In the daytime it can be left free. It should not be allowed to become stiff. In those rare cases when this would occur at less than ninety degrees of flexion the position should be corrected.

The wrist tends, as you know, to slump in ulnar deviation and also in palmar flexion. Both of these should be corrected at the start or should be anticipated by maintaining the wrist in a light aluminum splint in slight radial deviation and thirty degrees of dorsiflexion.

The hand shows a tendency to become flat, a condition analogous to spastic flatfoot. You can control this by a strap around the metacarpal bones.

The fingers are very common seats of deformity. I have not time to describe them except to say that every deformity that you can think of is possible at every joint. The fingers then should be splinted at night, and your working problem is to splint them in whatever way is indicated to oppose the tendency present toward deformity. During the daytime they can be left free.

Deformities occur in the hip in the sense of internal rotation, flexion, and adduction. The curative factor here is the removal of weight-bearing. You may have to use traction; you may have to use plaster of paris. If you use the latter, have it bivalved so that your physiotherapist can get in there with her lights and her massage and keep the tone of your muscles up. Operation may have to be resorted to, but not until the inflammatory process has been well for two years.

After arthritis of the fingers, arthritis of the knee, with shortening by flexion of it, is the most frequent manifestation of the disease. It may go on to permanent shrinkage of the hamstrings and of the posterior capsule. It should be prevented by using plaster of paris cast bivalved in 175 degrees of extension; again rest in bed is the great curative factor; avoid working with a bent knee.

The foot and ankle, where we have to deal with arthritis involving any of the smaller joints and very frequently the joint of the great toe, should be immobilized in slight supination and right-angle dorsiflexion, together with the removal of weight-bearing. After the inflammatory process has subsided, you can use manipulations to clear the thing up or, in the hypertrophic varieties, you may have to do some bone plastic work.

But what I am trying to say here is that it is the responsibility of the man who sees these persons first to recognize that if they are to avoid serious crippling disease, they must be treated in a posture which prevents the deformity with which the late-appearing orthopedic surgeon shall struggle with, at best, indifferent success.

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RODNEY F. ATSATT, M. D. (1421 State Street, Santa Barbara).—Doctor Smith's conception of one of the causes of arthritis is eminently sound. There can be no question but what a considerable percentage of our arthritides have intoxication from the gastrointestinal tract as an etiologic factor. Whether these toxic materials are due to incomplete splitting of proteins, whether they are endotoxins or exotoxins from bacterial growth, or whether there is actual entrance into the blood stream of the bacteria themselves, is a much discussed question. Be that as it may, the bowel is undoubtedly responsible for certain arthritic conditions and the author's excellent and careful observations as well as his unique operative procedure are especially valuable to those of us who have to do with these chronic patients.

In agreement with Doctor Watkins, may we again make the plea that orthopedic surgeons and their physiotherapists be called in early in arthritic cases and their calling not be delayed until after well-nigh irreparable damage has been done to joints, capsules, ligaments, and muscles.

GOITER—RECENT ADVANCES IN ITS TREATMENT*

By CARL L. HOAG, M. D.
San Francisco

DISCUSSION by *W. I. Terry, M. D., San Francisco; Clarence G. Toland, M. D., Los Angeles; Ralph T. Richards, M. D., Salt Lake City; A. B. Cooke, M. D., Los Angeles.*

THE cause of goiter is still unknown. Recently Shivers¹ sent out a questionnaire to the world's authorities and received forty-three replies. These indicate only too plainly that the data are insufficient from which to draw definite conclusions.

ETIOLOGY

However, most authorities accept the hypotheses that lack of iodine or infectious processes, or both, are of primary importance in the etiology of goiter, with psychic trauma, sex imbalance, heredity, food, and water supply ranking as secondary factors.

In addition, most authorities agree with Marine⁵ that the lack of iodine is the principal factor in endemic goiter and that its use early in life or by the pregnant mother will prevent the disease. Just how prophylaxis should be carried out has been the subject of much controversy because some types of goiter, usually the adenomata, already existing, may be made toxic by the use of iodine. However, it would seem that this danger has been greatly overemphasized; Coller and Potter³ were unable to find a single case of thyrotoxicosis traceable to the prophylactic use of iodized salt, although reports from Switzerland, where iodine has been placed in the water supply, seem to show that there has been an exacerbation of some goiters which can be traced directly to its use. I have found it satisfactory to give small doses of iodine in any of its forms during alternate months on the hypothesis that, if too much is stored, the excess will be eliminated during a free period. Iodized salt and the syrup of iodide of iron are tolerated especially well by children.

FUNCTION OF THE THYROID GLAND

The function of the thyroid gland is iodine metabolism. Whether the lack of iodine causes a physiologic and functional alteration of the gland or allows some infectious process to do it is debatable. It is well known, however, that the administration of iodine does modify the course of many infectious processes such as syphilis and actinomycosis and, if goiter is caused by some specific infection, as is believed by Crotti² and others, the beneficial effect of iodine upon goiter may be, partly at least, due to this action.

The hypothesis that an infection, or infections, together with iodine deficiency causes hyperplasia of the thyroid gland is, perhaps, stronger today than ever before. While some believe in a specific bacterium or fungus as yet not isolated, the ma-

* Read before the General Surgery Section of the California Medical Association at the sixtieth annual session, San Francisco, April 27-30, 1931.

jority of writers lean toward the opinion that ordinary infections or their toxins are the usual causes. Some degree of thyroiditis is found in nearly every hyperplastic goiter. It varies from a mild round-cell infiltration to a fulminating infectious process which destroys the gland. Even in those cases showing the greatest degree of thyroiditis there is evidence of hyperthyroidism, and the clinical symptoms usually are benefited by the use of iodine in direct ratio to the amount of regeneration present.

Two hypotheses have been advanced to explain the temporary remission of symptoms usually obtained by the use of iodine in hyperplasias of the thyroid. Marine⁵ advances the idea that the thyroid cells are stimulated to secrete colloid which fills the acini and compresses the lining cells, lessening the production of thyrotoxin, so that the patient shows a clinical improvement. As the cells adjust themselves to the new condition, the amount of thyrotoxin is again increased. The continued use of iodine exhausts the colloid-producing power of the cells and degeneration takes place, but the production of thyroxine continues. Plummer's⁶ theory regards exophthalmic goiter as a dysthyroidism which is converted into a pure hyperthyroidism in the presence of iodine. Whatever may prove to be the correct answer to the problem, nearly all authors agree that the remission of symptoms caused by the use of iodine is temporary and cannot be regarded as a cure. Following Plummer's⁶ idea, and the experience of others also, the preoperative use of iodine has been restricted largely to the treatment of hyperplastic goiter because benign adenomas were thought to be made toxic and toxic adenomas more toxic by its use. Collier and Potter³ have treated a relatively large series of cases of hyperplasia and adenoma, using the same dose of iodine in each group. They conclude that, while 88.3 per cent of the patients with hyperplasia were benefited, as we would expect, 54 per cent of the patients with adenomata also showed definite improvement. From these figures it would seem that more than half of the adenomatous group (the diagnosis was proved at operation later) had hyperplasia present, which responded to the iodine therapy, or that some adenomata actually are improved by iodine.

A possible explanation may be found in Allen Graham's⁴ views. Recently he challenged Wollfer's accepted theory that adenomata arise from embryonal cell rests, on the grounds that no such fetal cells can be found and that the process can be explained as rationally by a localized hyperplasia and involution with atrophy of the surrounding thyroid tissue to form the capsule. Nodular hyperplasia might, then, be an intermediary stage in the development of the adenoma. If this can be proved, it will be evidence of the common origin of two types of goiter usually thought to be quite different. The recognition that hyperplasia may exist in a thyroid gland largely replaced by adenomata also may be taken as evidence of a closer relationship, but a different state of development.

TREATMENT

Any agent which will destroy the superabundance of the hyperplastic goiter and restore the thyroid balance will effect a clinical cure. Boiling water or caustic drug injections, radiation or surgery may be used; but so far surgery has been the most satisfactory means of promptly checking the progress of the disease.

Operative Technique.—The operative technique of thyroidectomy has been standardized so well that little need be said about it except to emphasize four points:

1. The amount of thyroid tissue removed will determine the result. A review of large numbers of cases by Austin and Wagner,¹⁰ by Willard Thompson¹¹ and by Else¹² shows that recurrences are invariably the result of the removal of too small an amount of gland. Every case, therefore, must be individualized and the experience of the surgeon and his judgment, based upon clinical and laboratory findings, will determine the result. Following a subtotal thyroidectomy, the administration of iodine may prevent the recurrence of hyperplasia and keep the basal metabolic rate down. If too large an amount of the gland has been left, however, the use of iodine may seem to restore the thyroid balance, while in fact a latent thyrotoxicosis exists.

2. Preservation of the parathyroids is important. Millzner⁷ has shown that in 30 per cent of patients one or more parathyroids lie on the anterior or lateral capsule. Preservation of this capsule will prevent tetany or parathyroid insufficiency.

3. In large adenomatous goiters the preservation of the capsule not only saves the parathyroids but, as well, whatever normal thyroid tissue remains outside these tumor masses. This is especially true in those patients exhibiting signs or symptoms of hypothyroidism. Regeneration of this capsular tissue may be sufficient, after operation, to bring the basal rate back to normal.

4. Well placed symmetrical incisions, which heal by primary intention, leaving only hair-line scars without suture or clip marks, are a source of lifelong satisfaction to the patient as well as to the surgeon. Accurate closure of the platysma, approximation of skin edges, and drainage only in exceptional cases, add much to the cosmetic result.

Radiation.—Radiation of adenomata may bring the basal metabolic rate within or below normal limits, but the symptoms and signs of thyrotoxicosis do not disappear. A similar condition is seen frequently in patients, with untreated adenomas, whose basal metabolic rates are normal or subnormal though they have toxic symptoms. Apparently encapsulated adenomatous tissue has a greater resistance to radiation than normal or hyperplastic gland, and if radiation is carried far enough to destroy the adenoma itself, all other parts of the gland also will be destroyed.

Radiation of hyperplasia is at times most satisfactory. Some of these patients undoubtedly are cured. Upon others, radiation has little or no

effect or, if there is any reduction of the basal metabolic rate, it is too slow to prevent permanent cardiovascular and nervous changes from taking place. There are, however, certain cases of low-grade hyperplasia which, in my opinion, can be treated with good results by the use of roentgen therapy. If the basal metabolic rate is below plus 30, the clinical picture mild, and there seems to be no indication of a rapid exacerbation, radiation is quite satisfactory. Frequently, however, these apparently mild cases increase in symptom complex and basal metabolic rate even under x-ray therapy. In this event such therapy should be discontinued, as surgery will give a much more satisfactory and permanent result. It must be remembered, however, that if a subtotal thyroidectomy is done after radiation, usually more tissue should be left than in the case of an unirradiated gland.

Malignancy.—Carcinoma of the thyroid is relatively rare, occurring only in from one to two per cent of all thyroid patients treated surgically. Approximately 85 per cent definitely arise in adenomata. The disease progresses rapidly and the mortality is very high. The average length of life after the diagnosis has been made, as calculated by Ward and Carr,⁸ is one year and two months. For those patients whose diagnosis is first made at the time of operation or in the pathological laboratory the average duration of life is two and one-half years.

For those upon whom a diagnosis of carcinoma has been made in the laboratory after incomplete removal of the thyroid gland, the question of future treatment arises. I think most surgeons will agree that an early secondary operation at which all the involved tissue is removed, followed by radium or roentgen therapy, offers the best chance of cure.

Certain cases of thyroiditis showing areas of regeneration have been diagnosed as malignancies. Clinically the two conditions are quite different. A malignancy usually arises from an adenoma and spreads from a definite point, involving all tissues alike. The remainder of the thyroid is not involved. On the other hand, thyroiditis which is sufficiently advanced for clinical diagnosis usually involves both lobes and the isthmus in almost an equal degree. The lobes are hard, with rounded edges and angles, so that the gland moves as a whole and tenderness invariably is present at some stage of the disease. The treatment of malignancy must be radical surgery; that of thyroiditis may be watchful waiting, with conservative surgery if it is indicated.

Parathyroid Insufficiency.—Typical tetany undoubtedly is recognized as a rule, but I believe that many patients with parathyroid insufficiency, which have a blood calcium above the level which would produce tetany, escape the physician's notice. Laryngeal tightness, tingling of the hands and feet, spasm of the ocular muscles with difficulty of accommodation, frequently are interpreted as postoperative irritability in a highly nervous patient when really they are caused by temporary parathyroid insufficiency.

My attention was called first to this condition some twelve years ago when roentgen treatment for thyrotoxicosis first became popular. Many patients submitted themselves to courses of treatment and, not being relieved promptly, came to operation. The usual amount of thyroid was removed and an unusual number became hypothyroid. In treating this group of patients with thyroid extract, I found that many of them felt much better if calcium was administered with it and would request that it be given if it were discontinued. I believe these were cases of parathyroid insufficiency with a blood calcium above the level producing tetany. Whether this condition was caused solely by the operation or in part at least by the roentgen treatment cannot be determined.

Rarefaction of bones, as pointed out by Rugles, is frequently found in association with thyrotoxicosis. Apparently, in these patients fixed calcium is being withdrawn in an attempt to make up a blood calcium deficiency.

Treatment consists of the administration of calcium in any form, such as large quantities of calcium-containing food, calcium lactate or calcium chlorid. If this is not effective, parathyroid extract may be given. The use of glucose, subcutaneously or intravenously, or in the form of sugar by mouth, decreases the phosphate content of the blood and may be used as a substitute for parathyroid extract which is expensive and requires frequent administration.

SUMMARY

A review of the literature seems to warrant the following summary of our present knowledge of the treatment of thyroid disease:

1. Iodin may play a twofold part in thyroid disease: first, in iodine metabolism, and second, in modification of the course of invading infections.
2. Lack of iodine well may be the cause of endemic goiter and iodine deficiency, coupled with infectious processes or with the toxins from infections, the cause of hyperplasia.
3. The use of very small doses of iodine periodically, in the amounts contained in iodized salt, has not been productive of a sufficient number of thyrotoxic flare-ups in existing goiters to contraindicate its general use.
4. Ingestion of a sufficient amount of iodine will prevent endemic goiter, may modify its course when it is established, and may modify the course of hyperplastic goiter, but will not effect a cure in either type.
5. Iodin may be used safely as a preparation for operation in both adenomatous and hyperplastic goiters; it temporarily modifies the clinical symptoms in approximately 50 per cent of adenomas and 90 per cent of hyperplasias. Those hyperplasias least affected by it frequently show the greatest degree of thyroiditis.
6. The arrest of thyrotoxicosis depends upon the removal of a sufficient amount of gland to restore the thyroid balance. Failures usually are caused by insufficient removal.

7. The use of iodine postoperatively tends to prevent a recurrence of hyperplasia, but will not restore the thyroid balance when too little gland has been removed.

8. Parathyroid insufficiency may be present in spite of the fact that the blood calcium has not been reduced sufficiently to produce tetany. It should be recognized and treated early.

9. Good cosmetic results are essential in order to secure the confidence and coöperation of that large group of individuals having thyroid disease.

10. Radiation is contraindicated in adenomatous goiter. Frequently it is effective in low-grade hyperplasia.

11. Carcinoma of the thyroid occurs in from one to two per cent of all thyroid patients treated surgically. Radical operation, followed by radium or roentgen therapy, offers the best chance of cure.

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DISCUSSION

W. I. TERRY, M.D. (384 Post Street, San Francisco).—One cannot bring up a discussion of advances in the treatment of goiter without mentioning in the same breath a certain retrogression which has become more common in the years since Plummer emphasized the use of compound iodine solution. It becomes more evident as the years go on that the recognition of hyperthyroidism becomes an indication for iodine therapy in far too many cases. As Doctor Hoag has pointed out, an improvement may be expected in 54 per cent of the adenomatous group and 88 per cent of the cases of Grave's disease, and this in itself is a temptation to the internist to continue such therapy over a prolonged period. However, it is one thing to note an improvement following certain lines of therapy and another to get a cure. There is no evidence at hand to encourage one to look for a cure of adenomatous goiter by iodine therapy, and few cases of cure have been reported in Grave's disease. This is in spite of many attempts, upon large and well-observed series of cases. On the other hand, no surgeon familiar with goiter work can fail to note that the most difficult and dangerously ill patients with

which he has to deal are those treated for months with iodine, and who have thereby become iodine resistant. Thus the surgeon's most potent preoperative weapon has been rendered of no avail. Much emphasis should be placed upon the increased danger to the patient by this form of therapeutic mismanagement.

Regarding the differences in technique used in operations upon adenomatous goiter and hyperplasia, Doctor Hoag has done well to point out that in the former every attempt should be made to preserve as much uninvolved thyroid tissue as possible, while in the hyperplastic goiter only as much should be left as, in the surgeon's judgment, will supply adequate thyroid secretion after an initial period of mild post-operative hypothyroidism. The common error in adenoma is to leave too little thyroid and in hyperplasia too much. Those goiters which are hyperplastic and contain true adenomas should be handled like hyperplasias, taking care to remove all the adenomas which may be present. In this connection, I am confident that adenomatous tissue cannot substitute for normal thyroid gland. This in itself makes adenoma primarily a surgical condition in that either iodine or x-ray therapy has its maximum effect upon the thyroid gland rather than upon the adenomatous tissue. A further indication for early surgery upon this type of goiter is to be seen in the findings of Ward and Carr that 85 per cent of malignancies originate in adenomata and that 94 per cent have a history of pre-existing goiter.

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CLARENCE G. TOLAND, M.D. (1930 Wilshire Boulevard, Los Angeles).—The maze of interwoven factors bearing upon the etiology of thyroid disease has kept the medical profession in a continuous quandary for decades.

The relative importance of iodine intake, of infection, of constitutional predisposition, with later psychogenic trauma, has never been adequately determined.

Iodine metabolism has been the focus of most thought, and we are certain of its causative rôle in certain thyroid disturbances, such as endemic goiter. Its ameliorative effect in Grave's syndrome has been a godsend to the surgeon, who previously had to face a discouraging mortality and impose upon his patients a prolonged staged operative procedure. Save in the young adolescent patient, however, it rarely cures, and we are still groping for the cause.

I am becoming more and more of the opinion that infection is playing a rôle in the cause of Grave's disease, how important only later discoveries can tell.

Certainly the eradication of foci of infection, such as diseased tonsils or dental cavities, produces a marked favorable effect upon the disease.

When taking the history of these thyroid patients, we not infrequently find that the thyroid enlargement has been preceded by an acute respiratory infection.

During mild influenzal epidemics in the winter, we seem to see an increase in the number of patients with Grave's disease. It is entirely possible the thyroiditis produced may excite hyperplastic changes.

Another point I wish to bring out is the treatment of carcinoma of the thyroid. Doctor Hoag has pointed out the relative hopelessness of its surgical treatment. The point that needs emphasis and acceptance is that the treatment is preventive. Over 90 per cent of carcinomatous thyroids occur in fetal adenomata. Removal of all adenomas obviously would prevent practically all cancers of the thyroid.

A short time ago we operated upon a patient with a hard sclerotic adenoma who ten years ago had chosen x-ray treatment rather than surgery. It proved to be cancerous.

Several weeks ago we found cancerous tissue in an adenoma of a girl nineteen years of age.

Even though the percentage of occurrence of cancer in an adenoma is only one-half of one per cent, I do not believe we are justified in asking our patients to accept even that chance. The same surgical principle applying to removal of precancerous tissue elsewhere

should apply here. Regardless of pressure symptoms, I believe all adenomas, with rare exceptions, should be removed. We know the majority of them eventually cause trouble, due to cardiovascular damage and toxic changes.

✱

RALPH T. RICHARDS, M. D. (115 East South Temple Street, Salt Lake City, Utah).—Doctor Hoag has been most successful in summarizing in a short space the main points of his subject. My agreement with his conclusion leaves me very little to discuss.

There is, however, one point which I think may be further emphasized, namely, the harmlessness of the domestic and restaurant use of iodized salt. Information obtained from the leading salt companies in the United States shows the average consumption per person is approximately three and one-half pounds per year. The strength of potassium iodid in the iodized salt is 1 to 5000. The average individual dose of persons using iodized salt exclusively would not be more than one grain of potassium iodid a month. Needless to say, this amount is harmless, and in such small doses would not have a harmful effect on any type of goiter. The numerous articles to the contrary appearing in the literature the last few years are not convincing.

In considering technique, Doctor Hoag recommends "drainage only in exceptional cases." I am aware of the increasing use of the nondrainage method, but have seen too many complications from retained secretions, and one case of mediastinal abscess, so that I personally lean toward drainage in case there is much freshly cut glandular surface exposed at the end of the operation. When cuneiform excision is possible, or cut surface can be closed over by sutures, nondrainage can be almost routinely employed. In case drainage is used, I can see no contraindication to using the midline, provided the depressor muscles are brought together below the drain in the suprasternal space. This gives direct outlet for the discharges, does not thicken the suture line, and prevents the unsightly suprasternal depression which may be present in case the muscles are not brought together beneath the drain. While the drain may be removed in twenty-four hours, the condition of the patient must be the determining factor.

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A. B. COOKE, M. D. (727 West Seventh Street, Los Angeles).—It is extremely difficult to prepare a paper on any subject which is at once brief, comprehensive, and practical. Doctor Hoag has succeeded admirably. He gives us little that is new or startling, but everything he says is well worth careful consideration.

Personally, I still believe that there is a real difference between the hyperthyroidism of toxic adenoma and that of exophthalmic goiter—a difference in kind as well as in degree. Anyone who will eliminate the dicta of the laboratory while he ponders the problem will find this conclusion forced upon him. I imply no criticism of the laboratory, but I maintain that the findings of the microscope must not be allowed to supersede and nullify obvious clinical evidence. The vagotonic imbalance which characterizes exophthalmic goiter is probably the chief factor operating to produce a distinct clinical picture.

In his fourth point under Operative Technique, Doctor Hoag maintains the advisability of providing drainage only in the exceptional case. I am very sure that this suggestion is unsound. Even the most expert operator will find himself compelled to open the wound at a later date in fully 90 per cent of the cases. Drainage for one day adds nothing unfavorable to the progress of convalescence or to the ultimate appearance of the wound.

The one special plea I would make in connection with the surgery of toxic adenoma is that it be sufficiently radical to accomplish permanent results. Though one lobe only may seem to be implicated, it is important to bear in mind always that small, and for the time being, inactive foci are apt to be disseminated throughout the gland. Timidity or negligence

on the part of the operator can only mean in many cases partial and temporary relief, with necessity for a second operation at a later date.

Probably the most important point to be observed in the surgical management of exophthalmic goiter is that operation is positively contraindicated so long as the toxicity is on the increase. This applies to ligation as well as to thyroidectomy. In these dangerous cases it is far better to wait for an interval of remission. Fewer patients will die while waiting than will succumb under any type of surgical attack.

In doubtful cases or where satisfactory response to preparatory treatment cannot be obtained, the advantage of multiple stage operation should be invoked. The average patient will withstand a few minutes of surgical trauma, whereas attempt to complete the work at one sitting is very likely to multiply the dangers many fold.

The surgery of the thyroid gland has become safe surgery. In expert hands the mortality is maintained in the vicinity of one per cent. That it is occasionally followed by recurrence, or that the toxic symptoms now and then persist after operation, cannot be denied. Such untoward results cannot be fairly charged to surgery. Rather are they to be regarded as reproaches to the individual operators. The surgeon who does the most complete thyroidectomy is practically always the surgeon who has had the widest experience. In his hands unfortunate after-results of the kind referred to are seldom encountered.

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DOCTOR HOAG (Closing).—I wish to thank all those who have so kindly discussed my paper and have added so much of value to it, especially Doctor Richards for his remarks on the use of iodized salt. I feel that we have been too conservative in recommending this simple and harmless means of preventing endemic goiter.

As I have indicated in this paper, I quite agree with Doctor Toland's view that focal infections play a very important part in hyperplastic goiter, and if they are not the real causative agent they are at least frequently responsible for the exacerbations.

Doctor Terry's statement that "the common error in adenoma is to leave too little thyroid and in hyperplasia too much" should become an axiom to the thyroid surgeon.

Doctor Cooke is sure that the closure of goiter wounds without drainage is unsound. To me there is no more reason for drainage here than after a clean appendectomy. Closure without drainage does, however, require a more careful handling of tissues, a complete hemostasis, with a minimum amount of small-sized catgut, and adequate asepsis. My associates and I have drained less than two per cent of all primary thyroidectomy patients over a period of the last twenty years, the operations having been done under nitrous oxid-oxygen and usually without local infiltration. Contrary to Doctor Cooke's contention that 90 per cent will have to be opened later, 75 to 80 per cent have healed by primary intention, the remaining 20 to 25 per cent having been aspirated through the line of incision one or more times. There have been no occurrences of mediastinal abscess or other serious complications. I cannot agree that drainage does not interfere with the cosmetic result and prolong the convalescence. Moreover, one-day drainage does not prevent the formation of serum later unless the drainage tract is frequently reopened or kept open. Serum sufficient for aspiration, if it occurs, usually first becomes manifest on the seventh to the tenth day and for the most part is the result of clogged lymph channels from absorbing catgut. This is supported by the fact that, with a silk technique, as high as 95 per cent of primary healing can be obtained, although the penalty for using non-absorbable material may be too great in the other five per cent to allow of its routine use. Drainage too frequently is followed by scar formation, adherent and painful scars, localized keloids, and a prolonged period of convalescence. Why use it?

CORONARY OCCLUSION—SOME
ABNORMAL RHYTHMS*

REVIEW OF LITERATURE

REPORT OF CASES

By WILLIAM H. LEAKE, M. D.
Los Angeles

DISCUSSION by Donald J. Frick,* M. D., Los Angeles;
William Dock, M. D., San Francisco; F. R. Mason, M. D.,
Los Angeles.

LEWIS¹ has shown that ligation of a coronary artery in animals may provoke disturbances in rhythm. In man extrasystoles are common, and paroxysmal tachycardia, especially of the ventricular type, auricular flutter, auricular fibrillation, and heart block have all been observed. Robinson and Hermann² have commented on the frequency of ventricular tachycardia following coronary occlusion. Wearn³ reported a study of nineteen cases of coronary infarction which came to autopsy. There were ten electrocardiograms in this series. It was noted that disturbances in the T wave and a decrease in the amplitude of QRS were the most constant findings. In all the ten records there was an alteration of T in at least one lead, particularly in 1 and 2. There were no abnormal rhythms reported.

Fred M. Smith⁴ reported eleven patients with coronary occlusion, in one of whom the descending branch of the left coronary artery was ligated in repairing a stab wound of the heart; the remaining ten patients had typical clinical manifestations of coronary artery occlusion. There were two autopsies in this series. The most constant findings were change in T deflection and a decrease in amplitude of QRS. No abnormal rhythms were described.

K. Shirley Smith⁵ reports one case of complete heart block following coronary thrombosis. The patient recovered. Levine and Brown⁶ found only two instances of complete heart block in a series of 145 cases and Parkinson and Bedford⁷ only one in a series of 100 cases of cardiac infarction; abnormal rhythms other than extrasystoles occurred in fourteen. These authors are of the opinion that in the majority of cases the rhythm remains normal apart from extrasystoles, and the rate is usually but not always increased.

Louis H. Sigler⁸ reported a series of twenty cases of acute coronary occlusion. These patients were apparently studied only from the clinical and electrocardiographic standpoint as no autopsies were reported. Except in one patient whose electrocardiogram showed auricular fibrillation no abnormal rhythms were demonstrated. There were two records which showed partial heart block. Many of the electrocardiograms in this series were taken several weeks or months after the attack, therefore no conclusions can be reached concerning disturbances in rhythm or conduction.

* From the Medical Service of the Los Angeles County General Hospital.

* Read before the General Medicine Section of the California Medical Association at the sixtieth annual session at San Francisco, April 27-30, 1931.

FINDINGS IN EXPERIMENTAL STUDY OF
CORONARY INTERFERENCE

In a recent study of angina pectoris F. C. Wood and C. C. Wolferth⁹ demonstrated temporary ventricular complex changes in fifteen patients during attacks of angina pectoris. The remaining fifteen showed no "specific" electrocardiographic changes during the attacks. In a series on dogs and cats, temporary interference with a part of the coronary circulation produced temporary and rapidly reversible changes in the electrocardiogram somewhat analogous to those seen during attacks of angina pectoris. More striking changes followed the clamping of the vessels on the posterior surface of the heart (the circumflex branch of the left and the posterior descending branch). Usually little or no change was produced by obstruction of the right coronary or of the anterior descending branch of the left coronary artery. There were more marked changes which followed the simultaneous obstruction of both main branches of the left coronary artery than followed the obstruction of either one separately. In their experiments it was also noted that rapidly reversible alterations in the ventricular complexes were more readily obtained after myocardial damage, incident to previous manipulation, had produced a certain amount of permanent electrocardiographic change. This would indicate that coronary occlusion in a healthy fresh heart does not produce electrocardiographic changes as readily as it does in a damaged one. Wood and Wolferth noted further that temporary coronary occlusion in their animals frequently produced no electrocardiographic change. Cardiac arrhythmia, which could be attributed to the circulatory disturbance in itself, was not a frequent early phenomenon. When it did occur, it seemed to be attributable to the mechanical stimulation of the heart muscle by the mechanism producing the occlusion.

STUDY OF THE REPORT OF EIGHTEEN CASES
OF CORONARY OCCLUSION

This paper is based on a study of eighteen cases of coronary occlusion in which necropsy revealed obstruction by a thrombus or an embolus (one case) in some portion of the coronary circulation. Electrocardiograms were obtained in each case following the occlusion; the shortest period elapsing was four hours, the longest twenty-one days. In eight cases the first electrocardiogram was taken within thirty-six hours, in six within one week, and in four the records were not obtained until more than seven days had elapsed following the occlusion. More than one electrocardiogram was obtained in several cases.

Age Incidence and Etiology.—The youngest patient in this series was forty-three and the oldest seventy-seven, the average age being fifty-nine. The proportion of males was considerably higher than is usually given, as there were sixteen males and only two females. As far as could be determined from the histories—some of which through force of circumstances were very sketchy—occupation, habits and previous illnesses

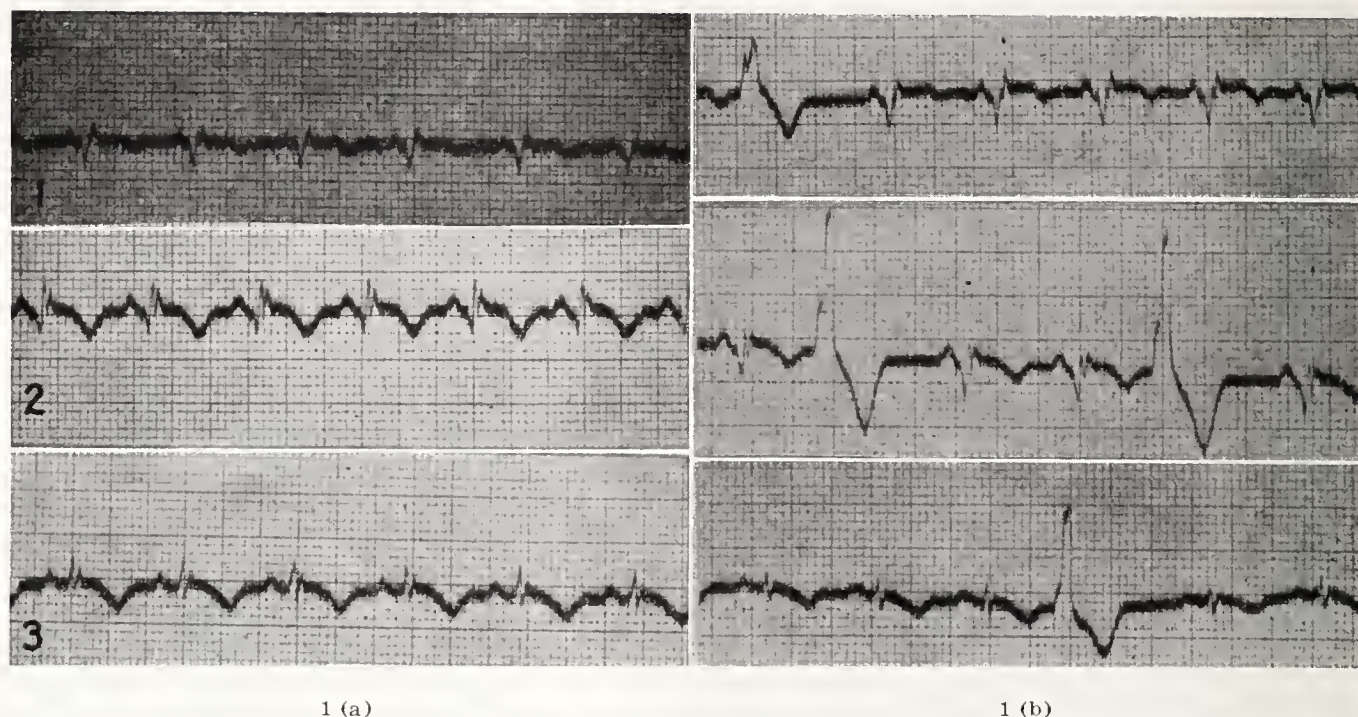


Fig. 1 (a) is an electrocardiogram taken March 31, 1927, showing low voltage in all leads and a high take-off of R-T in leads 2 and 3. This record was considered typical of coronary occlusion. Figs. 1 (b), 1 (c), and 1 (d) are electrocardiograms taken during the subsequent five months.

could not be held responsible for the coronary artery disease. The Wassermann test was positive in one case and a two plus Kahn reaction was present in one. In no instance was evidence of luetic heart disease found at necropsy. Arteriosclerotic changes were found at necropsy in all the cases of this series and peripheral arteriosclerosis was evident in practically all the patients.

Associated Arrhythmias.—The striking feature in this relatively small series is the number of electrocardiograms showing arrhythmias other than premature contractions, the latter being the type most frequently reported in the literature. Of the eighteen cases five showed auricular fibrillation, although it was difficult to determine in two of these the duration of the irregularity. One of these, Case 14, showed short periods of ventricular tachycardia following symptoms of coronary occlusion which occurred while the patient was in the hospital. In Case 3 persistent

ventricular tachycardia superseded the auricular fibrillation which occurred following the thrombosis and was apparently the immediate cause of the patient's death. Although ventricular tachycardia occurred four times in this series, in only two of the patients did it follow immediately the attack, and in one of these (Case 13) it was controlled by quinidin, the patient dying suddenly several days later while the rhythm was regular. Complete heart block was encountered twice, and in each case it apparently occurred as a direct result of the coronary accident. The remaining nine cases showed regular rhythm with the exception of occasional ventricular premature contractions in three of these. Bundle branch block involving the right bundle occurred once.

Electrocardiograms.—The electrocardiograms in six patients of this series failed to show changes in the R-T interval which are considered typical of coronary occlusion. The so-called

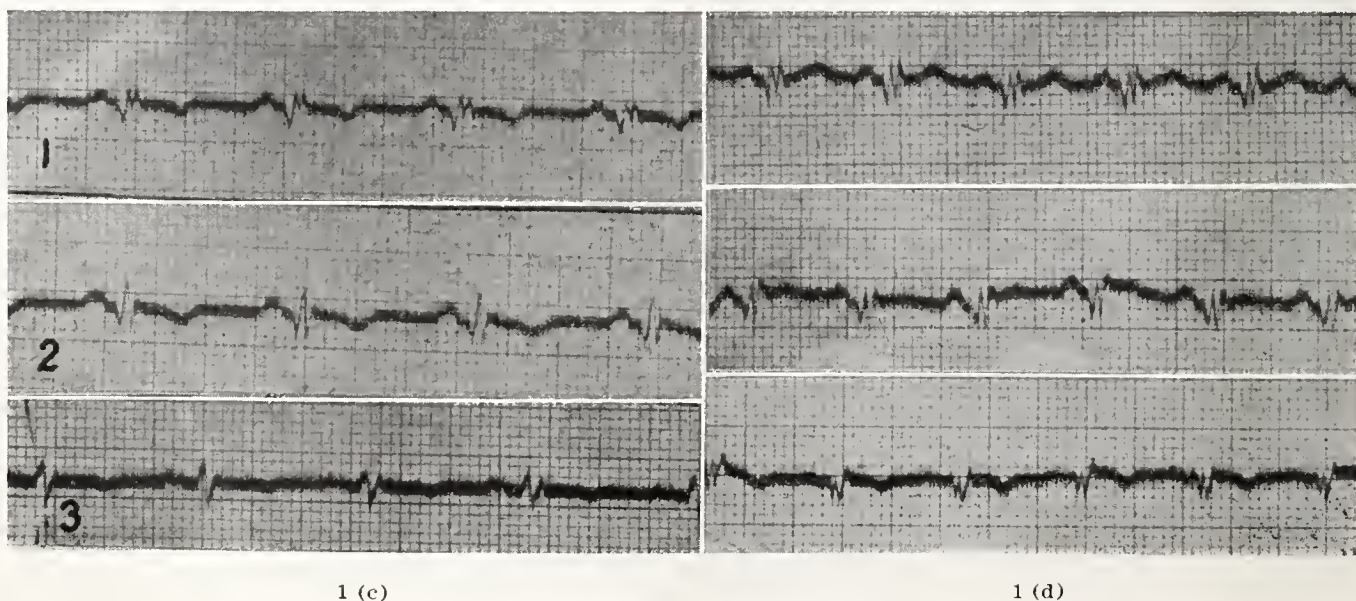


Fig. 2.—See legend under Fig. 1.

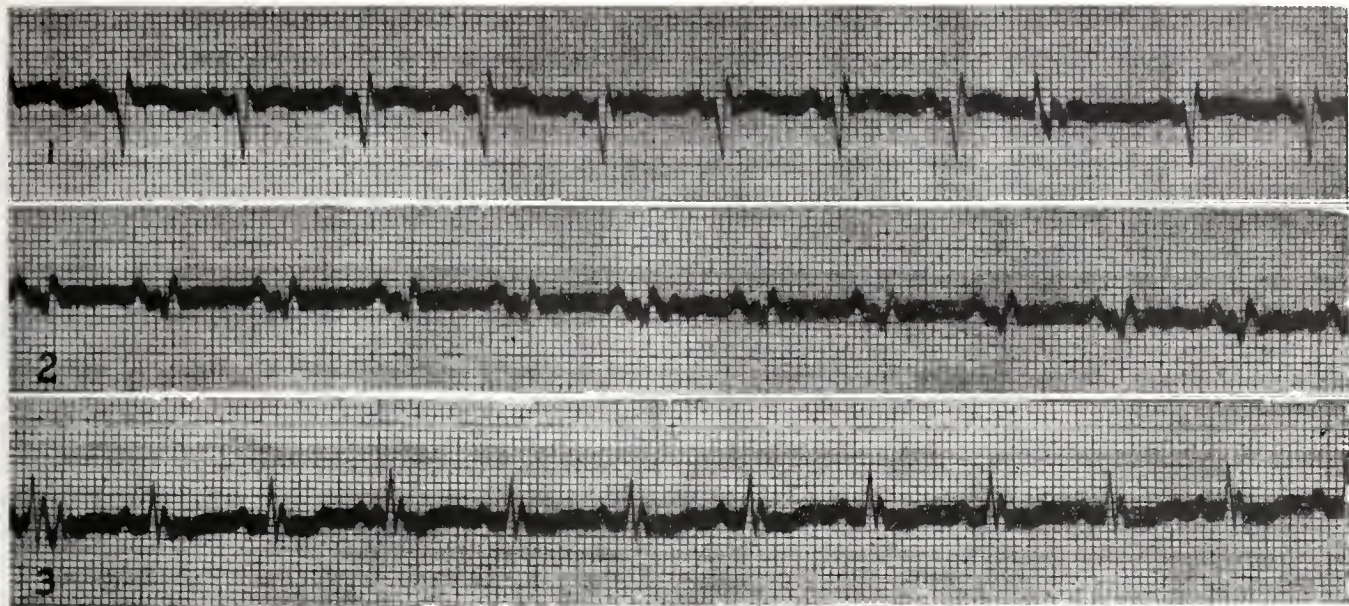


Fig. 3.—Electrocardiogram taken March 5, 1931, showing right axis deviation, ventricular premature contraction low voltage and slight upward convexity of the R-T interval in lead 1.

“coronary T” occurred in lead 1 alone, four times; and in leads 1 and 2, twice; in leads 2 and 3, three times; lead 3, two times; and once in all three leads. The patients in whom no suggestive changes in the R-T interval were detected were as follows: three with regular rhythm, two with auricular fibrillation, and one with complete heart block.

Coronary Involvement.—The infrequency with which occlusion of the right coronary artery is encountered at necropsy is demonstrated in this study. Only two patients showed complete occlusion of the right, although in two there were marked sclerosis and narrowing in addition to thrombosis of a branch of the left coronary artery. In one of these patients the electrocardiogram showed auricular fibrillation with typical R-T changes later followed by ventricular tachycardia, while the other showed complete heart block with no R-T interval changes. In fifteen cases the left coronary was involved and in one the pathologist failed to state the location of the thrombus. No attempt was made to localize the lesion by means of the electrocardiogram, but the impression remains after analyzing these case histories that this would not have been possible.

REPORT OF CASES

Lack of space prevents a detailed report of all the cases in this series. Two cases, No. 5 and No. 13, have been selected for description.

CASE 5.—A man, fifty-four years old, was admitted March 31, 1927, complaining of pain beneath the sternum and in the back and shoulders. The onset occurred five days previously with sharp, lancinating pain in the precordial area and under the left scapula. These symptoms were accompanied by shortness of breath and cyanosis. Except for frequent colds and sore throats, and an attack of rheumatism ten years previously, the patient denied all other illnesses including venereal disease. He stated that he used neither tobacco, alcohol, nor drugs. On admission the patient was dyspneic and cyanotic. The heart rate was rapid and the rhythm was of the “gallop” type. The heart sounds were of poor quality, but no murmurs or friction rubs were heard. There was an occasional premature contraction. The blood pressure

was 106 systolic and 80 diastolic. An electrocardiogram taken shortly after admission showed low voltage in all leads, and a high take-off of the R-T interval in leads 2 and 3. The record was considered typical of coronary occlusion. Four subsequent electrocardiograms during the next five months showed a persistence of the low voltage, but the high take-off of the R-T interval became less noticeable (Figs. 1 and 2).

The patient's course in the hospital was very stormy during the first three months. He suffered frequent attacks of severe precordial pain with radiation to the left arm, and at times severe nausea was present. The blood pressure gradually rose from 106 systolic and 80 diastolic to 165 systolic and 100 diastolic. Five months after admission the patient developed symptoms which were attributed to either bronchopneumonia or infarction in the right lung. The leukocyte count rose to 31,000 with 88 per cent polymorphonuclears. The temperature remained elevated for a week, following which definite improvement was noted. A small amount of sterile hemorrhagic fluid was removed from the right thorax during this acute illness. The patient was discharged September 28, 1927. Treatment consisted of rest, nitrites, theocalcin, and sedatives.

Following the patient's discharge nothing further was heard from him until December 1929, when he was sent to the out-patient department by another clinic for an orthodiagram. This showed a slight decrease in the size of the heart. He was again lost sight of until March 5, 1931, when he was admitted to the medical service with a diagnosis of cardiac decompensation. He had been taking small quantities of digitalis over a long period of time, but one month prior to this admission, he had developed increased

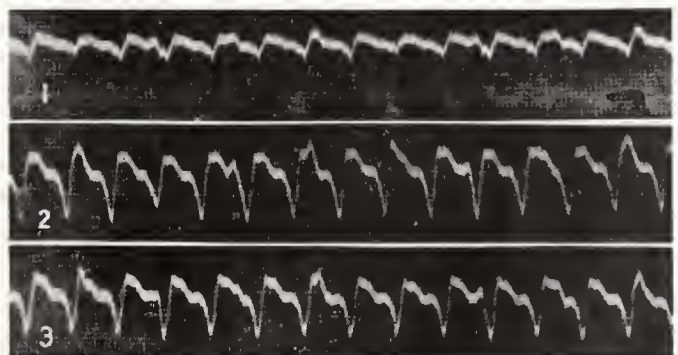


Fig. 4.—Electrocardiogram of J. K., showing ventricular tachycardia with a rate of 150.

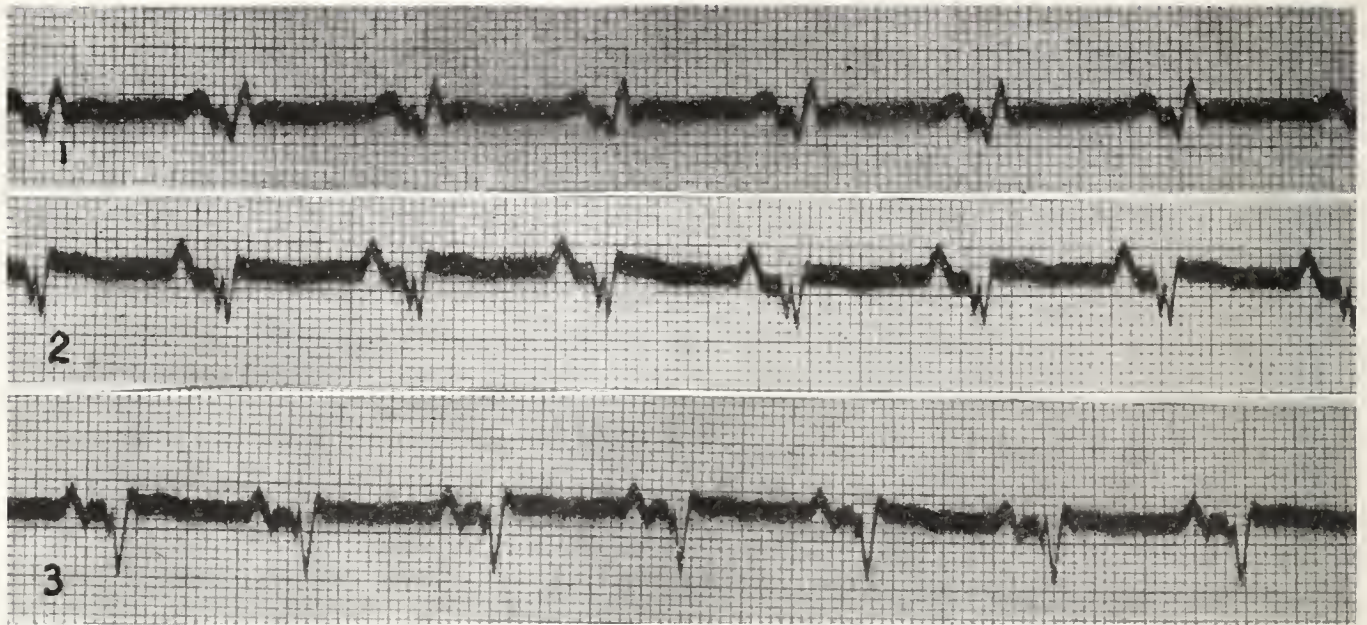


Fig. 5.—Electrocardiogram of J. K. after two grams of quinidin sulphate by mouth had been administered (0.3 gram every three hours), showing normal rhythm.

dyspnea and weakness, and edema had appeared in the lower extremities. The patient stated that he had been able to do light work since his discharge from the hospital in 1927, but he had experienced frequent attacks of weakness, palpitation, and dyspnea. There had been little or no pain. Examination revealed the general picture of congestive heart failure. There was marked arteriosclerosis. The blood pressure was 120 systolic and 80 diastolic. The heart rate was 90 and the rhythm was regular. An electrocardiogram taken five days after admission showed right axis deviation, ventricular premature contractions, low voltage, and a slight upward convexity of the R-T interval in lead I (Fig. 3). The patient was given digitalis and the fluid intake was restricted. He died suddenly twelve days after admission while sitting up in bed.

At necropsy the heart weighed 500 grams. All chambers were markedly dilated and there was slight hypertrophy of the ventricles. On the anterior surface of the endocardium of the left ventricle there was an area 3x4 centimeters covered with material resembling a thrombus. On section the greater part of the wall of the left ventricle, especially that portion overlying the thrombotic area, was very fibrous and contained numerous petechiae. The anterior descending branch of the left coronary artery showed many calcareous plaques with marked narrowing of the lumen and obliteration of the artery about one centimeter from its origin. Similar changes were observed in the circumflex branch of the left coronary with almost complete obliteration of the lumen near its termination.

Electrocardiograms taken following the acute onset in 1927 were considered characteristic of coronary occlusion, but the record obtained during the patient's last illness showed only low voltage, occasional ventricular premature contractions and a slight upward convexity of the R-T interval in lead I. In the earlier electrocardiograms the characteristic R-T changes were found in leads 2 and 3. Necropsy disclosed no evidence of recent thrombosis, but the findings revealed obliteration of the lumen of the anterior descending branch of the left coronary artery and a fibrosis of the wall of the left ventricle.

CASE 13.—A man, fifty-one years of age, was admitted to the hospital complaining of marked weakness, dyspnea, palpitation, nausea, and vomiting. The symptoms had first occurred eight days previously, but had been much worse for two days prior to admission. There had been no previous similar attacks. There had been considerable precordial pain. On admission the blood pressure was 98 systolic and 80

diastolic. The heart rate was extremely rapid, the rhythm was regular and the sounds were practically inaudible. An electrocardiogram obtained shortly after admission showed ventricular tachycardia with a rate of 150 (Fig. 4). The patient was given quinidin sulphate by mouth, 0.3 gram every three hours, and after 2 grams had been administered the rhythm was normal (Fig. 5). The patient appeared to be improving, but he died suddenly while sitting up in bed six days after admission.

At necropsy the heart weighed 500 grams. There was marked coronary sclerosis with complete occlusion by a thrombus of the interventricular branch of the left coronary artery. There was fibrosis of the myocardium at the apex.

The electrocardiogram taken eight days after the onset showed ventricular tachycardia. Sinus rhythm was restored by the oral administration of quinidin.

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DISCUSSION

DONALD J. FRICK, M. D. (1136 West Sixth Street, Los Angeles).—The cases reported have been well

analyzed and, fortunately, leave no question in our mind as to the diagnosis as they were followed to the autopsy table. All showed marked sclerosis with probable cardiac fibrosis, so that it is not surprising that there was such a large number evidencing abnormal rhythm during some stage of their illness. Auricular fibrillation has not been an unusual finding in our cases of coronary occlusion in the aged, and occurred in one young man (whose usual health was robust) who developed a coronary occlusion following an operation for a gangrenous appendix. Heart block, bundle branch block, may not be a sequel of coronary occlusion but may have existed for some time prior to the occlusion. The same mechanism that causes coronary occlusion oftentimes produces fibrotic changes in the conducting system with consequent block. We have wondered at times whether the change in the circulation of the heart was the cause of abnormal rhythm, as we have seen several patients develop auricular fibrillation of a paroxysmal type following sudden shock or injury: one patient after being badly frightened, one following a fractured clavicle, and two after fracture of the hip. All these patients had exhibited myocardial damage of an appreciable degree with hypertension and arteriosclerosis but no evidence of coronary occlusion at the time of the onset of their abnormal rhythm.

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WILLIAM DOCK, M. D. (Stanford University Medical School, San Francisco).—Doctor Leake's carefully studied series of patients who died following coronary occlusion emphasizes the serious import of paroxysmal tachycardia in this condition, for the incidence is always, as in his series, greater in those who are going to die of the disease than in those who survive an attack of this sort. On an experimental basis, both digitalis and quinidin have been shown capable of preventing such attacks of tachycardia, but it is the usual practice to use quinidin. It is now quite clear that patients who have had extreme shock and severe myocardial damage due to coronary thrombosis tolerate quinidin even in very large doses, and I know of no cases in which its use has done harm. The need for it usually arises between the third and fourteenth days after the onset of symptoms. Heart block, either transient or permanent, is likely to manifest itself earlier, but is a less serious complication and requires treatment only when associated with Stokes-Adams seizures.

I believe that the safest administration of quinidin is to begin the drug in doses of 0.3 to 0.5 gram every four to six hours as soon as paroxysmal tachycardia occurs or when ventricular extrasystoles become more frequent than six to eight per minute, and to continue the drug for at least two weeks, regardless of whether the arrhythmia is abolished quickly or not. I should be interested in knowing if Case 13 was still on quinidin at the time of his death. Quinidin, unlike digitalis, has a rather transient effect, and must be given every six hours to keep the heart under its influence. While we cannot expect it to prevent sudden death in this group of cases, it undoubtedly reduces the risk of ventricular fibrillation in the patients with ventricular arrhythmias.

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V. R. MASON, M. D. (838 Pacific Mutual Building, Los Angeles).—This timely paper by Doctor Leake calls attention to sudden disturbances of rhythm in patients and to their importance as evidence of disease of the coronary arteries.

It is the demonstration of these minor disturbances as well as the more spectacular phenomena which has led to more early and accurate diagnosis of cardiac disease incident to coronary artery narrowing.

With early and accurate diagnosis it is apparent that the institution of proper treatment will lead to considerable prolongation of life in many instances.

THE PATCH TEST—ITS USE IN DERMATOLOGY*

REPORT OF CASES

By JOHN M. GRAVES, M. D.
San Francisco

DISCUSSION by Fred Firestone, M. D., San Francisco;
Norman N. Epstein, M. D., San Francisco; Samuel Ayres,
Jr., M. D., Los Angeles.

THE patch test was suggested in Europe by Bloch and Jadossion. Interest has been stimulated in this country particularly by Sulzberger, Wise, Spain, and others.

This test is of assistance in determining the etiology of many cases of dermatitis venenata. Of recent years many attempts have been made to clarify the subject of dermatitis and eczema. Investigation has succeeded in amputating various groups from the old classification. A better understanding of the part played by fungi in the production of dermatoses has removed a large number of conditions from the old eczema group and has established them as distinct entities. With the patch test we are now in the process of segregating another group.

The test itself will probably have a wide use. It is simple to apply, does not require much time, and the results are frequently easily apparent.

TECHNIQUE

The test is performed as follows: The gummed surface of a strip of adhesive tape is partly covered with a piece of oiled silk about one inch square. Gauze or linen, two or three layers thick, is cut about one-half inch square. This gauze is moistened with the suspected material. The gauze square is placed in contact with the skin and covered by the oiled silk and adhesive tape. Spain has used ordinary blotting paper instead of gauze and found it satisfactory. If the tests are few they may be applied to the arm. Frequently, however, there are many suspects so that it is necessary to apply the tests to the back. Ordinarily the patches are left in contact with the skin twenty-four hours. If, however, a severe reaction results, the patch should be removed. Spain, in his work of poison ivy, found that contact for two to four hours was sufficient.

It is now a well-established opinion that many cases of dermatitis or eczema of an erythematous, papular and vesicular type are truly allergic phenomena. Much of the experimental work has been done with plants such as primrose. Bloch, for instance, has succeeded in sensitizing himself to primrose. There are so many individuals who are sensitive to plants that experiments can be repeated sufficiently often to be convincing.

It is well known that in certain cases of urticaria, the patient can be shown to be sensitive to various substances. This has been demonstrated by scratch and intradermal tests. In eczema, how-

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* Read before the Dermatology and Syphilology Section of the California Medical Association at the sixtieth annual session, San Francisco, April 27-30, 1931.

ever, the allergic phenomena often differs. Thus a patient's skin may react to simple prolonged contact, but not to the scratch test. Were the scratch test only done on such a patient, he would remain in the group of eczemas of unknown cause. It can now be definitely said that, in investigating the cause of eczema, the patch test is one of the essential methods, and in such cases is superior to other functional skin tests.

CLINICAL APPRAISAL

It is easy for this test to become cumbersome. One must not forget that he is practicing clinical medicine rather than mechanistic medicine. If every case of eczema were subjected to testing with all possible contacts the results would be confusing and discouraging. In the average case a careful history and close study of the lesions will point to probable substances involved. By a proper clinical appraisal, the number of tests to be done is lessened and the entire procedure simplified. This is well illustrated by a case report recently published by Sulzberger and Weinberg. The patient, suffering with an extensive dermatitis sufficiently severe to markedly affect the general health, had been treated for months by diet, glandular substances, colonic irrigations, blood injections, Alpine light, et cetera. A careful history indicated an external irritant as the probable cause. Questioning reduced the probabilities to eight. One of these, an insect powder, was definitely shown, by means of the patch test, to be the etiologic factor. Removal of the powder from the patient's environment was followed by a permanent disappearance of the eruption.

The phenomena of eczema are explained as allergic reactions. Certain cells have become allergic due to previous contact with a specific substance. This is not necessarily protein in nature. As a result of this contact, fixed cell antibodies are supposed to develop. Another contact with the specific substance then results in a reaction. This development of actual sensitization has been accomplished many times in man and animals.

Of particular value are the experiments of Bloch in which he sensitized himself and others to primrose. These experiments explain the phenomena of acute dermatitis venenata. The problem of chronic eczema presents many difficulties. Perhaps, in order to provoke a dermatitis, prolonged contact with the antigen is necessary, especially if the antigen be dilute. Some evidence in favor of this possibility may be adduced from the fact that Bloch could sensitize a man to primrose much more rapidly by using a very concentrated extract.

There are certain times when the reactivity of the skin is exaggerated. At such times one may obtain numerous positive reactions from substances that have no relation to the dermatitis. These cases must be retested. The increased reactivity of the skin may be lessened by a brief period of rest in bed and by the promotion of elimination.

On the other hand, there are refractory phases during which time a patient will not react to substances to which he is actually extremely sensitive.

Therefore suggestive reactions should always be repeated. Negative tests should also be repeated when a carefully taken history is indicative.

Attempts have been made to determine the degree of sensitization of the individual patient. The tests are made with the known allergen in different dilutions. This has been of particular value in poison oak and poison ivy dermatitis. The allergen is applied in different dilutions, as described above. The weakest dilution giving a reaction serves as an indication of the dose to be used in attempts at desensitization. The next weaker dilution is the first one used. In this manner the danger of severe reactions is minimized.

The older idea of an internal or metabolic cause for eczema is being attacked. Numerous attempts to explain the condition by means of blood chemistry determinations, endocrine studies, et cetera, have so far given few definite findings. Recently attention has been directed toward the calcium and potassium ratio in the blood, but nothing of a positive nature has been shown.

There certainly is some change in certain cells that allows them to react in a characteristic manner; what it is no one as yet knows. It is known, however, that there is a specific reaction with a specific antigen. Practically it is often possible to identify the antigen. Its elimination from the patient's environment is then followed by a disappearance of the lesions. This conception applies to all allergic diseases.

The patch test applies especially well to patients with acute and subacute dermatitis venenata. In the study of chronic eczema it has been unsatisfactory. This is perhaps explained by Bloch's experiments. Prolonged contact is often necessary for sensitization. Perhaps prolonged contact is sometimes necessary to produce a positive skin reaction. This idea awaits experimentation and development. It may further the application of the patch test to a larger group of clinical conditions.

INTERPRETATION OF THE PATCH TEST

The interpretation of the test is important and there are several factors that must be kept in mind. The question arises as to what comprises a positive reaction. To be considered positive there must develop an area of dermatitis. There should be itching, erythema, and vesiculation as in ordinary clinical dermatitis venenata. However, there are certain reservations that must always be held in mind in interpreting the results of the tests. These have been well summarized by Sulzberger and Wise. While a dermatitis at the site of the test means hypersensitiveness, certain conditions must be met before one is justified in concluding that the specific substance used is responsible for the eruption. Care must be taken to identify a positive reaction from a dermatitis due to the adhesive tape. The two lesions are separated by a line of normal skin which has been protected by the oiled silk. Even though a test be positive, it is without meaning unless the history indicates that the patient comes in contact with the substance.

The patch must also correspond to the eruption being investigated. The test must, therefore, result in a dermatitis in order to be positive.

Prevention of contact must be followed by disappearance of the dermatitis. It must be recalled that sensitization is frequently polyvalent. This merely means that contact with all substances to which the patient is sensitive must be avoided.

REPORT OF CASES

The following brief case reports will illustrate some of the clinical problems with which one comes in contact.

CASE 1.—Miss A. M. Age, twenty-six years. Complained of eruption of face and neck; duration, off and on, for one month. Past history negative except for several attacks of "poison oak." Examination showed marked erythematous, scaling dermatitis of face and neck. No vesiculation. Lids markedly swollen. Skin and mucous membrane otherwise negative. Patch test with contacts. Rouge was positive, with marked vesiculation. Discontinuance of the rouge was followed by prompt relief. There have been no further attacks for six months.

CASE 2.—A. N. Painter. Age, fifty-four years. Complained of eczema of hands and face. Duration, two months. He has been a painter for thirty-five years. Examination showed a scaly and vesicular dermatitis of face, neck, and hands. There was a definite line of demarcation between involved and normal skin at root of neck and wrists. He had been using a turpentine substitute composed of petroleum distillate and pine oil. Patch tests with these two substances gave marked bullous eruptions. Distillate is a primary irritant. The pine oil in the dilutions which were used did not provoke an eruption on normal skins.

Avoidance of contact with the turpentine substitute was followed by prompt relief.

SUMMARY

In conclusion, we may say that the patch test gives us a simple method of segregating certain cases of eczema and establishing the identity of the offending substance or substances. We will briefly summarize the conditions that must be fulfilled:

1. There must be history of contact.
2. The result must be some variety of dermatitis.
3. Removal of the substances must cure the patient.

909 Hyde Street.

DISCUSSION

FRED FIRESTONE, M. D. (Medico-Dental Building, San Francisco).—As one interested in allergic diseases, it affords me great pleasure to discuss Doctor Graves' interesting paper, for the coincidence reveals the close relationship of allergy to the complicating dermatoses.

The generalized acceptance of the patch test in the armamentarium of the dermatologist, as expressed in Doctor Graves' paper, is very timely. The simplicity of the test warrants its use. The close adherence to the three postulates, as emphasized by the author, is imperative to proper interpretation. History of contact cannot be overemphasized. There is merely one warning to be added in the contact history, for it has been shown by Dr. Henry W. Straus that infants may be artificially sensitized to poison ivy, provided there was a previous contact. Further, it has been shown in pollen dermatitis cases that often it is necessary to have a prolonged contact with the pollen oil, and that the actual lesion of the dermatitis may not appear for a period of several weeks.

The second postulate that the resultant lesion of the patch test must simulate the original dermatitis

goes without saying; and third, that the removal of the offending excitant with a clearing of the lesion, and the recurrence with contact clinches the diagnosis.

The greatest field of usefulness of the patch test comes in the group designated as dermatitis venenata, as specifically demonstrated by poison ivy, poison oak, sumac, and primrose. The occupational dermatitis cases due to irritants handled offers a great field, as emphasized by varnish, turpentine, boxwood, cedar wood, dyes used in furs and woollens, anilin dyes and paints. Personally I have treated a dermatitis due to henna and inecto used by one of the operators in a hair-dyeing parlor. Sulzberger and Kerr recently demonstrated trichophytin hypersensitiveness of the urticarial type, with circulatory antibodies and passive transference, and advocate the use of Hoechst trichophytin paste* as part of the routine investigations of urticarias of unknown etiology.

Furthermore, the great variability of skin hypersensitiveness in different individuals to the same excitant and the degree of reactions at varying intervals cannot be stressed too strongly, so that often retesting is absolutely necessary to bring proper results.

Too much emphasis cannot be brought to bear on the significance of using varying dilutions of the known allergen as a means of determining the degree of sensitization, as shown by Spain, and thus affording an indication of the dose to be used in attempting desensitization.

I concur in my opinion with Ramirez and Eller, who state that the patch-test method of testing is superior to other methods in determining sensitization to contact excitants, and particularly those of nonprotein nature.

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NORMAN N. EPSTEIN, M. D. (Four Fifty Sutter Building, San Francisco).—The use of the patch test in an attempt to determine a specific etiologic cause for a dermatitis venenata is certain to come into more general use because of its simplicity and ease with which it can be performed. While it cannot be hoped that it will solve the question of eczema or dermatitis, still it will segregate a few more cases from that large group which is now classified as eczema.

Doctor Graves has spent a great deal of time and study in applying the patch test. His paper is timely and should stimulate many of us to a more frequent use of the method.

Of particular interest is the possible application of the patch test to certain industrial cases. We have all had to deal with the problem of the painter who, after following his trade for many years, develops a dermatitis which recurs repeatedly when he comes in contact with materials which formerly caused no effect upon his skin. From a clinical standpoint this patient has become sensitized to these irritants, due to prolonged and repeated contact. If it can be shown by the patch test that the irritant is a specific one and the removal of this will allow the patient to continue his work, a great good will have been accomplished.

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SAMUEL AYRES, JR., M. D. (2007 Wilshire Boulevard, Los Angeles).—We have employed the patch test for several years in determining the etiology in cases of contact dermatitis, and I can endorse all that has been said by the author and the previous discussers. In the past we have all been too prone to jump at conclusions as to cause and effect upon such unreliable evidence as clinical appearance and history. Since the use of the patch test we have been afforded some very interesting surprises, and many substances hitherto unreported as causes of dermatitis venenata have been incriminated by this technique. Like Doctor Firestone, we have also encountered a case of dermatitis venenata in a beauty-shop operator who was found by patch test to be strongly sensitive to red and bronze henna and also to inecto. Another incident illustrating the value of these tests was in the case of two dentists seen within the same week, both complaining of an erythemato-squamous and fissured

* Imported by Metz & Company, New York City.

eruption of the hands and fingers. The natural impulse was to attribute the eruption to novocain. A patch test of this substance on one dentist was positive, thus confirming the clinical diagnosis, while the other failed to react. A careful microscopic examination of scales from the hand of the second dentist revealed large numbers of fungi, thus substantiating the accuracy of the negative patch test to novocain. The appearance of the eruption in both cases was strikingly similar, and I feel that a differentiation on clinical grounds alone would have been impossible.



DOCTOR GRAVES (Closing).—The discussers have emphasized the important points, so that little more need be said. The application of the patch test to dermatitis venenata is apparent. It is to be hoped that refinements of the test will enlarge its scope of usefulness.

The use of this test by means of prolonged contact may demonstrate a reaction in some cases of "chronic eczema." These may then be classified as chronic dermatitis venenata. In this manner the applicability of the term "eczema" can be further restricted.

CALCULOUS ANURIA*

REPORT OF CASE

By EDGAR C. LEE, M. D.
San Diego

DISCUSSION by Nathan G. Hale, M. D., Sacramento;
A. J. Scholl, M. D., Los Angeles; Franklin Farman,
M. D., Los Angeles.

ONE of the most serious complications arising in renal lithiasis is anuria. The conditions in which complete cessation of urinary secretion occurs have long been recognized, but it may be permissible to briefly review them.

First: Both kidneys may simultaneously become obstructed by stone.

Second: The obstruction may affect a single kidney, the opposite kidney being congenitally absent or renal function having been previously destroyed by disease.

Third: A fused ureter draining both kidneys may become blocked.

Fourth: A reflex anuria may occur, the obstruction to one kidney resulting in a reflex inhibition of kidney function on the opposite side.

Some of the salient points in the clinical course of calculous anuria were well shown in a case recently observed by the writer.

REPORT OF CASE

The patient was a man forty-five years of age, who was admitted to the hospital on the 28th of June, 1929. He was a well-developed man who worked as a laborer; his weight was 170 pounds, and he had always been in good health. There was no history of any previous symptoms referable to the urinary tract. The onset of his illness began two days before he was admitted to the hospital and was characterized by diffuse abdominal pain radiating toward the right flank. This was accompanied by nausea and vomiting; the pain subsided after a few hours, but the vomiting was persistent.

Examination at the hospital showed abdominal distention with marked rigidity of the abdominal muscles, no area of pronounced tenderness was made out

either in the abdomen or in the region of either kidney, and there were no other physical findings.

The pulse rate was 72; temperature, 97.6; blood examination showed 4,120,000 red cells and 9900 leukocytes with a differential count of 85 per cent polymorphonuclear cells. The hemoglobin index was 70 per cent; the blood pressure was found to be 160 over 110.

On this day he voided eight ounces of urine. The specimen was brownish in color and showed a faint trace of albumen and no sugar. The centrifuged specimen showed many red blood corpuscles and a moderate number of epithelial cells and leukocytes.

Roentgenologic examination of the urinary tract revealed a shadow of stone density about five to seven millimeters in size in the region of the right kidney. On the left side, at the level of the first lumbar transverse process, a faintly outlined shadow was shown, the character of which was not determined; it was not of stone density and suggested a partially calcified mesenteric gland.

An enema afforded the patient considerable relief from his abdominal distention and his general condition appeared good, nausea and vomiting being at this time the outstanding symptoms.

The blood chemistry which was done on the following day showed 59 milligrams of urea nitrogen per 100 cubic centimeters of blood with a 2.5 milligram of creatinin.

A cystoscopy on this day showed 40 cubic centimeters of dark-colored urine in the bladder. The bladder mucosa was normal throughout, the right ureteral opening appeared somewhat swollen, and the left ureteral opening was not visualized. A No. 6 catheter passed to the level of the right kidney pelvis without meeting any obstruction, but it was not possible to establish any urinary drainage through the catheter. Ten cubic centimeters of indigo carmin were injected intravenously, but there was no return of the dye from the catheter in the right ureter nor was any dye observed being brought into the bladder from the left side. On the afternoon of this day the patient voided twelve ounces of urine, the character of which was similar to the specimens examined previously.

Fluids were given freely, the patient being able to retain water by mouth; and the rectal drip was well tolerated. The abdominal muscles were now comparatively relaxed, and nausea, though recurring at intervals, was not enough to prevent the patient from taking water by mouth.

During his third day in the hospital he voided three ounces of dark-colored urine. His general condition remained good and he was apparently relieved of his previous abdominal distress.

There was no further renal secretion during the next three days in spite of which no symptoms suggestive of uremia developed. Glucose solution was given intravenously; the patient's skin was moist and there was no apparent change in his general condition. On this day the blood chemistry showed a rise of urea-nitrogen to 140 milligrams per 100 cubic centimeters of blood; the creatinin curve reached 6.8; the patient, who had been advised previously regarding surgical treatment, then consented to an operation.

Under ethylene-oxygen anesthesia the right kidney was exposed and found to be greatly engorged with the capsule very tense. A nephrotomy was done by an incision over the convex border of the kidney and the pelvis was explored for the presence of a calculus. As no stone could be palpated, no prolonged search was made and a soft drainage tube was placed in the pelvis through the kidney incision and the wound was closed in the ordinary manner. Before the operation was completed there was free drainage of blood-stained fluid through the tube.

The patient was returned to his room from the surgery at 2:30 p. m. and 1000 cubic centimeters of normal saline solution was given intravenously. By

* Read before the Urology Section of the California Medical Association at the sixtieth annual session, San Francisco, April 27-30, 1931.

6 p. m. the drainage through the tube measured 690 cubic centimeters, and during the next twelve hours 4590 cubic centimeters of blood-stained urine was collected from the tube, in addition to which there was considerable drainage into the dressings. During the following twenty-four hours the amount of urine collected measured 3060 cubic centimeters and on this day, the second following the nephrotomy, blood chemistry showed a reduction of the urea-nitrogen to 18 milligrams per 100 cubic centimeters of blood, and creatinin had dropped to 1.3 milligrams per 100 cubic centimeters. The next period of twenty-four hours showed a secretion of 2800 cubic centimeters of urine after which the total amount for twenty-four-hour periods varied from 2030 to 2090 cubic centimeters.

The patient's subsequent progress was uneventful. The tube draining the kidney was removed on the fifth day. The wound healed well but for a small urinary sinus which discharged small amounts of urine intermittently, but closed at the end of about twenty days.

Sixteen days following the day of operation five cubic centimeters of indigo carmin were given intravenously and a cystoscopy showed that the dye was being secreted from the right ureteral opening in normal time and good volume.

A roentgenogram showed the small opacity previously reported in the right kidney area to be now located at the level of the middle portion of the sacrum on the right side.

The patient's convalescence was rapid; he returned to his work and was not under observation until seen a year later. At this time a roentgenogram showed no shadow suggestive of a calculus. The urine analysis was negative. One cubic centimeter of phthalein intramuscularly showed a return of 85 per cent of the dye in two hours and fifteen minutes. Forty grams of uroselectan were given intravenously and a roentgenogram showed a clear outline of kidney pelvis and major calices on the right side, whereas no opacity was observed on the left side.

COMMENT

A sudden suppression of urine due to obstruction caused by calculus may be partial or complete. It was formerly thought that a sudden blocking of the ureteral tract would lead to an immediate suppression, but it is now considered that the condition resulting is one of retention in the ureter and renal pelvis. This retention may be of varying degree and the intrarenal pressure resulting is the causative factor in bringing about total suppression of secretion.

Calculus anuria is generally considered to be the result of mechanical obstruction. The question of reflex inhibition has been a much debated one. Many case reports would tend to prove the occurrence of reflex anuria, but autopsy findings do not support these views, and only these case reports can be accepted as proof of an inhibited secretion in which the reflexly inhibited kidney was shown to be healthy. It is assumed that reflex anuria results from contracture of the intrarenal vessels which have received their impulse from the vasomotor nerves. Anuria following burns, abdominal trauma, and operations on the kidney and bladder, is explained by stimulation of the splanchnic nerves.

Frank concluded that reflex inhibition of function occurring in a healthy kidney can be explained on the basis of sudden circulatory changes, the compensatory vascular activity causing an overdilatation from the arterial side with resultant venous congestion.

The majority of cases of calculous anuria occur in the middle-aged and the condition is more frequently seen in the male, but instances of children and infants suffering from this disease have been reported.

The onset is usually accompanied by pain in the region of the kidney which has become suddenly blocked, the severity and duration of the pain are quite variable, there may be all the characteristics of a severe renal crisis or the patient may complain of a dull ache in the lumbar region. Radiation of this pain along the ureter and toward the genitals is not a constant feature. Again there may not be any pain referable to either kidney region. There is usually a cessation of pain in a day or two and it would seem that this is dependent on an equalization of the pressure within the renal vessels. There may be some bladder irritation at this time with a frequent desire to void, though no urine or very little is passed.

The general condition of the patient is often quite unimpaired and this period of tolerance has been reported as lasting as long as twenty days. The average length of time of this period in a series of sixty-two collected case reports was from five to six days. During this stage the patient may be entirely free from pain and mentally clear, dryness of skin, gaseous distention of the bowels, nausea and vomiting, being the only symptoms complained of. It has been observed that this period is prolonged in cases of hydronephrosis. The onset of the uremic period may occur without warning, or such symptoms as drowsiness, headaches, and muscular twitchings may foretell the impending change.

DIAGNOSIS

Regarding the diagnosis it must be remembered that there may not be anything in the previous history to suggest the renal secretion was previously limited to one kidney.

Pain and anuria, either complete or partial, are the characteristic symptoms of the disease, and the severity and location of the pain will suggest on which side the sudden blocking has occurred. The roentgenographic findings of a shadow of stone density and the localization of the shadow by means of an opaque catheter are the first steps toward the diagnosis; with this in view it is well to routinely make two exposures for the purpose of a stereoscopic view.

In a review of seven cases, Cahill and Gile state that in only three patients were the roentgenographic findings sufficiently characteristic of calculus to form the basis of a diagnosis.

Cystoscopy may show the impacted calculus at the ureterovesical orifice or the absolute block to the further advance of the ureteral catheter may localize the position of the stone.

Intravenous injection of a dye following the forcing of fluids will show the failure of renal secretion from both ureteral orifices. The use of opaque solutions for further outline or localization of the stone should not be necessary and may prove harmful. It is to be remembered that

an impacted calculus may completely block the drainage of fluid from above and yet permit the passage of fluid injected from below the point of obstruction.

The changes in the blood chemistry are dependent on the duration of the anuria. Urea-nitrogen and creatinin retention is of the rapidly cumulative type and since the basic kidney substance has not been destroyed a prompt change toward the normal will usually follow the relief from obstruction.

TREATMENT

The treatment toward the relief of the anuria will necessarily be medical at the onset. Hot packs and the administration of fluids subpectorally or intravenously have been the usual procedure, and five per cent glucose solution has been employed for the diuretic effect.

The use of the duodenal tube in the treatment of a case of reflex anuria was reported by McCarthy. Following the administration of five per cent glucose and two per cent sodium bicarbonate, through the duodenal tube, there was an immediate and marked increase in renal secretion.

Ureteral catheterization has been effective in a number of cases in establishing drainage and causing a return of renal function, and the use of the indwelling ureteral catheter over a period of twenty-four to forty-eight hours has been suggested.

The expectant treatment should not be carried on longer than two or three days and the apparent condition of well-being on the part of the patient should not misguide us regarding the necessity of surgical relief.

Increased mortality accompanying longer duration of this period is an established fact.

A nephrotomy will be the means of establishing drainage when the expectant treatment has failed, and with this accomplished, if a small stone is not readily found, further and prolonged exploration of the kidney in search of the stone should be avoided.

Retrograde catheterization of the ureter may displace a ureteral calculus, but the fact that one may be dealing with a solitary kidney should be borne in mind.

Medico-Dental Building.

DISCUSSION

NATHAN G. HALE, M. D. (Medico-Dental Building, Sacramento).—Relief of back pressure and removal of the cause is the *modus operandi* for all types of cases of calculous anuria. Fortunately in this case there was prompt relief of back pressure. The calculus no doubt passed at a later date and caused no obstruction during its passage.

Calculous anuria in a solitary kidney as this case report presents requires no different management than that of a calculous anuria when there has been a previous nephrectomy. Promptness in operative interference is more liable to be overlooked by the general surgeon, who does not bring to his aid the urologist, whose first thought in any obstruction of the upper urinary tract is usually, "What is the other kidney doing." In this case there was apparently no other kidney, and prolonged delay would no doubt have resulted in greater impairment of kidney function.

A. J. SCHOLL, M. D. (Pacific Mutual Building, Los Angeles).—This paper is timely in that it again presents an old subject for a very necessary review, and reminds us that such conditions still occur and must be recognized. Calculous anuria is the term used to denote suppression of urine which results from the presence of a stone in the kidney or ureter. Before our present day of accurate methods of urologic diagnosis this condition was not infrequently encountered. It is now only rarely observed, as most patients receive treatment before such a stage is reached. On the other hand, anuria occasionally affects persons in robust health and may be sudden and complete in its onset. It still is responsible for the majority of deaths occurring in large series of stone cases such as have recently been reported.

The most important clinical feature of a case of calculous anuria is the fact that it denotes that the patient possesses only one functionally active kidney, the other being absent or destroyed by previous disease. The only exceptions to this rule are those cases in which the shock arising from the sudden blocking of the ureter gives rise to a so-called "reflex suppression" in the opposite kidney which, although functionally active, has suffered from previous disease and so has become more susceptible to any nervous influence.

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FRANKLIN FARMAN, M. D. (1401 South Hope Street, Los Angeles).—Doctor Lee's remarkable case of calculous anuria with recovery following nephrotomy prompts me to briefly cite the circumstances surrounding a similar case.

In August 1925 I was called one night to see a woman, age sixty-two, who was suffering intense right renal area pain and colic. She had passed diminishing quantities of highly colored urine for several days with total anuria for twenty-four hours. The abdomen was greatly distended, tympanitic, and a large, sensitive mass could be made out in the right upper quadrant. She was restless, tongue dry, breath foul, and slightly uriferous.

The attending physician, a relative, informed me that the patient had gone through similar, less serious attacks, and that it had been previously determined by cystoscopy, x-ray, and functional tests that the left kidney was probably atrophic and nonfunctioning. With this history and the present grave condition of the patient, we determined upon an emergency nephrotomy. The patient was removed by ambulance to the California Hospital and at midnight I performed, under spinal anesthesia, a nephropylotomy of the right kidney, draining a large hydro-nephrotic sac of the pelvis and lower pole. As in Doctor Lee's case, no prolonged search for calculi was attempted and, likewise, none found, but it was later determined by x-ray that there were many calcareous-like deposits apparently present in the right kidney.

The patient reacted poorly, with continued manifestations of uremia for two days, but finally passed the "crises" following blood transfusion. No bladder urine appeared for twelve days, all drainage coming through the right nephrotomy wound, proving beyond doubt that the left kidney was functionless. The patient recovered, leaving the hospital within one month.

The points that impress me about calculous anuria and anuria in general is the remarkable tolerance of the body to uremic poisoning, patients being known to recover after twenty days of total suppression of kidney excretion. Of course, partial compensatory elimination takes place during this period through the bowel, skin, and lungs.

Likewise, the need for conservative "nonpanicky" management in instances of anuria is obvious and one should be guided in operative indications as much by a general estimate of the patient's condition and type of kidney lesion involved as by laboratory tests indicating rising blood nitrogen retention. But when the indication is apparent prompt nephrotomy is a life-saving measure.

PERINEPHRITIC ABSCESS—COMPLICATING POLYCYSTIC KIDNEY*

REPORT OF CASE

By MORRELL VECKI, M. D.
San Francisco

DISCUSSION by Thomas E. Gibson, M. D., San Francisco;
A. A. Kutzmann, M. D., Los Angeles; Frank Hinman,
M. D., San Francisco.

ALTHOUGH relatively uncommon, polycystic disease of the kidneys is not rare. Preitz discovered sixteen in ten thousand autopsies. In a large majority of instances the clinical diagnosis is certain, with the signs of bilateral palpable renal tumors and renal insufficiency. It is surprising, nevertheless, how often the diagnosis is not made until the patient reaches the operating or autopsy table. Lejars reported that in sixty-two cases only five were correctly diagnosed during life. Since then, with increased knowledge and the aid of special methods of clinical examination, the percentage has grown much higher. Pyelography has played a very important part. Braasch¹ in 1916 reported that polycystic kidneys could be identified from the pyelograms alone in one-half of the cases.

COMMENT ON LITERATURE

Complications are not uncommon; in fact all that develop in a normal kidney can invade a polycystic kidney. Among the most common are suppuration, calculus, and tuberculosis. Ordinary suppuration is relatively frequent. Sieber reported 21 in 212 cases, or 10 per cent; Brin cited 23 in 324 cases, or 7 per cent; Chevassu² found 88 cases reported in the literature. Cabot³ stated that sepsis was uncommon, being present in only two per cent of a reported series of ninety-eight cases. The causes for infection are the same as those in normal kidneys and appear at a period when the normal kidney is the most liable to infection. Davis⁴ claims that infection usually follows an increase in size of the cysts, resulting in interference with drainage. He believes it is present in 80 per cent of adults. Tenenbaum⁵ claims that deformities of the pelvis and dislocation of the calyces favor urinary stasis and infection. Chevassu emphasizes the importance of ascending infection. He believes that many polycystic kidneys have been infected by ureteral catheterization through infected bladders, and advises against cystoscopy unless absolutely indicated. Trauma has been mentioned as a causative factor in suppuration. Suppurative polycystic kidneys vary markedly as to the character, extent and location of the infection. There may be little abscesses of the kidney without pus in the cysts. The cysts may be suppurated without any involvement of the pelvis; in fact negative urines may be drained from kidneys riddled with suppurative cysts. Infection may be cortical or medul-

lary, the cortical type having the tendency to bulge the capsule. An infected cyst may rupture and cause a perinephritic abscess.

Although several cases of so-called perinephritis, including three by Chevassu, were reported, I was able to find in the literature only three cases of true perinephritic abscess, complicating polycystic kidneys. Atonna and Morrissey⁶ report that they operated to drain a perinephritic abscess and discovered polycystic kidney disease. After adequate drainage the patient improved. The other two cases, one described by Richer⁷ and the other by Andre and Francfort,⁸ were associated with calculi. Richer's patient had two small calculi, and Andre and Francfort reported a very large calculus. It may be interesting to add that Malcolm⁹ had a patient who developed peritonitis, with recovery after drainage. The case to be reported is one in which the abscess developed as a complication of the rupture of a large suppurating cyst located in the upper pole of the kidney.

DIAGNOSIS

When suppuration complicates polycystic kidney disease, especially abscess, the diagnosis naturally becomes more difficult. First of all, because polycystic kidneys are relatively uncommon, and secondly, because the classical bilateral enlarged kidneys cannot be readily palpable due to subsequent fixture and tenderness of the mass. In other words, the invasion of the infected material obscures the original picture of the polycystic disease. Chevassu claims that the diagnosis is rarely ever made clinically, but we can hardly agree with that statement now because of development of more accurate means of diagnosis, principally the pyelogram.

TREATMENT

It is generally known that treatment for polycystic kidney disease is unsatisfactory and that medical treatment is more satisfactory than surgical. The opinion of most authorities, however, is that it is necessary to operate in unilateral suppurative cases whenever the pain and fever persist in spite of all treatment, both palliative and cystoscopic. Analysis of operated cases have shown that the mortality for nephrotomy, nephrostomy or nephrectomy is over 30 per cent. Chevassu advises nephrotomy, at least as a preliminary procedure, which he admits is only satisfactory when there are few cysts, and to later perform a nephrectomy, but only if the resistance of the patient is good and if the opposite kidney is functioning well. Obviously it must be assumed that the unoffending kidney is also polycystic. He reports recovery after one year in eight cases, three nephrotomies, two nephrotomies with secondary nephrectomies, and three primary nephrectomies.

REPORT OF CASE

Mrs. M., age forty. Referred by Dr. A. S. Keenan. Entered the hospital on March 13, 1930, complaining of knife-like pains in the right loin and suprapubic region and passage of large blood clots on urination.

* Read before the Urology Section of the California Medical Association at the sixtieth annual session, San Francisco, April 27-30, 1931.



Fig. 1.—Cut section of liver, showing largest cyst opening.

Family History.—Negative. Four children living and well.

Past History.—Negative, except for a kidney complication nine years ago during pregnancy. Since then she has had intermittent attacks of pain in the right kidney region.

Present Illness.—During October 1929 the patient began to have severe throbbing pains in the right loin, accompanied by chills and fever with nausea and vomiting. She was sent to a hospital and the diagnoses of perinephritic abscess and chronic nephritis were made. Operation was advised, but refused. After a month of treatment, consisting of rest, forced fluids, and hot compresses, she was discharged very much improved, believing that the abscess had "broken."

During January 1930 the patient experienced a similar attack, and the following month another attack accompanied by slightly bloody urination. These last two attacks did not disturb her, but on March 6 she was forced to go to bed because of acute knife-like pains in the right kidney region, accompanied by hematuria, with chills and fever, vomiting and general weakness. These symptoms continued until her entry into St. Francis Hospital on March 13.

Physical Examination.—Patient appeared very ill, septic and pale. Temperature, 100.4; pulse, 96; respiration, 20. Head, neck, and chest negative. Blood pressure, 115/70. Abdomen: Upper right side of abdomen and loin markedly rigid, almost board-like and very tender to palpation. Left side of abdomen was rigid and tender, but less so than the right. It was impossible to palpate the kidneys or feel any masses. The suprapubic region was moderately tender.

Urinalysis.—Specific gravity, 1010; acid. Albumen, 1 plus. Microscopic: Casts, 0; white blood cells, numerous; red blood cells, 20 to 30 per hdf.; numerous bacteria and amorphous urates. Culture: Colon bacilli, gram positive cocci. No tubercle bacilli found.

Blood Counts.—Hemoglobin, 42 per cent; red blood cells, 2,700,000; white blood cells, 21,000; neutrophils, 87 per cent. Wassermann: negative.

Phenolsulphonephthalein Test.—Hour first, 125 cubic centimeters. No reaction. Hour second, 100 cubic centimeters. Very faint reaction.

Blood Chemistry:	Milligrams Per 100 c. c.
Urea nitrogen	225
Nonprotein nitrogen	250
Creatinin	12
Uric acid	13.3
Sugar	166.7
Chlorids	475.0
CO ₂ combining power	45.0

Plain Roentgenography.—Neither kidney well outlined, the right considerably larger than normal, showing area of calcification apparently due to stone.

Cystoscopy.—March 15. Novocain, four per cent. Bladder capacity, 300 cubic centimeters. Inspection of bladder showed marked diffuse granular cystitis. Both ureteral orifices were located with difficulty, but were normal in appearance and catheterized easily with No. 6's. No drainage from right pelvis. Left pelvis drained fairly well with clear urine. One cubic centimeter phthalein injected intravenously. Very faint trace of the dye appeared after eleven minutes. Urine from left kidney showed six to eight pus cells per hdf., and numerous bacteria. A pyelogram was not made because of the patient's poor condition. There was no reaction.

Operation.—The patient was sent to surgery on March 18 with the preoperative diagnosis of "acute suppurative nephritis and perinephritic abscess." Although the prognosis seemed hopeless and in spite of the fact that the left kidney was obviously useless, an operation was done in order to release the pus, thereby alleviating the pain, giving the right kidney a chance to rally in case there was any normal tissue left.

Under nitrous oxid anesthesia, a lumbar incision was made and carried down to the superior lumbar triangle, which was opened, and immediately about 500 cubic centimeters of pus was released. The opening was widened, but further exploration was not made because of the patient's poor condition. Drains were inserted and the wound was closed. She failed to rally. Death took place on March 30, on the twelfth day postoperative.

Necropsy.—By Dr. A. M. Moody. Some emaciation. Latent tuberculosis of left apex which was adherent at apex only. Right lung adherent posteriorly to upper lobe (easily torn fibrous adhesions). Heart and liver: Cloudy swelling.

Congenital cysts in liver (both lobes) innumerable, varying in size from one to four centimeters in diameter (Fig. 1). Few small cysts microscopic in size were found in pancreas. Uterus, fallopian tubes, ovaries, appendix: No noteworthy changes.

Polycystic kidneys, right perinephritic abscess and pyonephrosis. The left kidney weighed 780 grams and measured 17 by 9.5 centimeters. No normal renal tissue present. The mass was made up of innumerable cysts, varying from one millimeter to over three centimeters in size. No suppuration seen (Fig. 2).

The right kidney weighed 960 grams and measured 19 by 8.9 centimeters. No normal renal tissue present. Innumerable cysts, varying from 1 millimeter to 4.5 centimeters in size. All were filled with purulent material except five or six which contained blood-clots. One cyst at the upper pole had been ruptured, releasing pus into the perinephritic region. No stones were found (Fig. 3).

SUMMARY

1. Polycystic kidney disease is neither rare nor difficult to diagnose.

2. Suppuration is a frequent complication and when present the diagnosis becomes difficult because the original picture is masked.



Fig. 2.—Cut section of left kidney (polycystic).

Fig. 3.—Cut section of right kidney (polycystic).
Arrow points to ruptured cyst.

3. A case of perinephritic abscess in a polycystic kidney unrecognized in life is presented. The abscess is demonstrated to be the result of a ruptured suppurating cyst.

450 Sutter Street.

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DISCUSSION

THOMAS E. GIBSON, M. D. (450 Sutter Street, San Francisco).—Polycystic disease of the kidneys is nearly always bilateral and in its effect on kidney structure and function may be likened to bilateral hydronephrosis, the difference being that in the former there is intrarenal, and in the latter, extrarenal obstruction to urinary drainage. In either case the result is the same, namely, interference with the free drainage of urine resulting in back pressure with atrophy of the renal parenchyma and consequent progressive reduction of function. This gradual reduction in function naturally in time exhausts the reserve power of the kidneys so that a uremic or suburemic state usually supervenes even without the burden of superimposed diseases. This happens most commonly in early middle age, sometimes at a later date, although occasionally such an individual will live out a normal life span without showing evidence of renal impairment. Thus it is seen that polycystic disease is an exceedingly grave one, particularly so when other diseases become superimposed on the already damaged kidneys, as in the case described by Doctor Vecki. Polycystic kidneys are subject to the same diseases as the normal kidney. Their treatment calls for grave consideration. There is no question as to the advisability of draining a perinephritic abscess, but there is considerable difference of opinion among

urologists as to whether nephrectomy is ever indicated in any disease affecting a polycystic kidney. Certainly the indications for nephrectomy in diseases affecting the normal kidney are not applicable in the polycystic kidney.

From a questionnaire sent out to members of the American Urological Society by Meltzer (1929) reports of one hundred and eleven cases of polycystic kidneys presenting unilateral surgical symptoms were obtained. In this series nephrectomy was done in fifty-nine cases, Rovsing cyst puncture in thirty-one cases, and such procedures as decapsulation, nephrotomy, etc., in the remainder. Unfortunately the author did not correlate the results with the particular type of treatment, but taking the group as a whole, twenty-four were alive from three days to six months after operation, twenty from six months to two years, forty-four from two to eight years, and nine from nine to fifteen years. In Young's "Urology" twenty-two cases are reported in which nephrectomy or nephrostomy was done. The mortality was 31.8 per cent, and only two patients were alive after two years. Such statistics show that the outcome of surgical intervention may be occasionally successful, but nephrectomy should be attempted only under the most urgent indications and not until it has been determined that the opposite kidney is functionally capable of carrying on.

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A. A. KUTZMANN, M. D. (1930 Wilshire Boulevard, Los Angeles).—Doctor Vecki has added a timely clinical report to a rapidly accumulating literature on polycystic kidneys. Clinical reports in recent years have shown that polycystic kidneys may fall heir to the same gauntlet of surgical diseases as normal kidneys. There naturally arises, then, the question of judgment in such cases that may require surgical treatment. This will, therefore, demand more careful thought on the part of the urologic surgeon than in the normal type of case, inasmuch as this type of patient is already surgically handicapped without whatever superimposed pathology may have been found. Individuals with polycystic kidneys without any complications are already laboring with a limited anatomicophysiological process. The amount of secreting renal tissue is very much limited so that we find deficient kidney function and probably no possible renal reserve as to available compensatory function and anatomical hypertrophy. Elective surgery would,

therefore, have to be limited only to emergency cases such as the type of case reported by Doctor Vecki or where there may be considerable acute distress from hematuria, calculus, etc. It would appear to me that such a procedure as nephrectomy would practically never be indicated. My experience with surgery in polycystic kidneys is limited to several cases in which Rovsing's operation of multiple cyst punctures was carried out. From the results, I have concluded that the patients would have gotten along just as well without my interference.

Where operation is absolutely necessary it is well to consider carefully the anesthesia used. Ether, especially, is contraindicated, and general anesthesia such as ethylene-oxygen and nitrous oxid oxygen anesthesia as well as such regional anesthesia as spinal, paravertebral block, and local, should be considered of choice so as to keep at a minimum the additional load on the already deficient renal system. It is remarkable how well many individuals with polycystic kidneys will get along even though there is a very low 'phthalein output and a blood nitrogen above normal. In conclusion permit me to say that elective surgical procedures be kept at an extreme minimum in patients with polycystic kidney disease and limited only to such emergency cases that demand immediate attention.

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FRANK HINMAN, M. D. (384 Post Street, San Francisco).—The case of Doctor Vecki presents some interesting points in differential diagnosis. The clinical history—a woman of forty-one, recurrent right renal colic for the last five months accompanied by hematuria and chills and fever, the last and most severe attack one week before entry—points to trouble in the right kidney, no trouble in the left. The septic condition, normal blood pressure, secondary anemia with leukocytosis and urinalysis (pus, blood, specific gravity 1010, slight albumen, no casts, many bacteria), together with this history suggests an infectious nephritis and not Bright's, and the physical examination indicates perirenal extension.

Subsequent urogenital studies confirm this but, in the light of the known operative and autopsy findings, should have gone farther possibly in interpretation of the true condition.

The total renal function is practically nothing, but there is no anuria or even oliguria. The amount of 225 cubic centimeters in two hours is a good output. With such marked sepsis and renal insufficiency a hypersecretion without hypertension suggests bilateral hydronephrosis, bilateral solitary cysts or polycystic disease. The blood nitrogen retention of 250 milligrams with a creatinin of 12 milligrams supports this view. Renal insufficiency must be of long duration and not recent or acute to allow of such retention. Plain x-rays are negative, ruling out bilateral staghorn calculus. On ureteral catheterization the left kidney showed a free output of clear urine with few pus cells and many bacteria but no phthalein, thus clearly indicating the bilateral nature of the renal insufficiency. As a confusing finding the right kidney failed to function, but there was no evidence of pelvic retention on either side, thus ruling out bilateral hydronephrosis. Had pyelograms been taken or intravenous pyelography done, no doubt a correct preoperative diagnosis would have been made. Under the circumstances it was, of course, of no consequence, but from the theoretical standpoint the findings which are reported seem to limit possibilities nearly to two conditions, bilateral solitary cyst or polycystic kidneys, complicated by a suppurative pyelonephritis with perinephritic abscess. Bilateral solitary cyst is very rare. A recent case had been diagnosed for over ten years as polycystic. The important distinction is that the one is curative, the other hopeless, and differentiation is only possible, as a rule, by pyelography.

The pictures of the kidneys on section indicate that the left kidney was more advanced than the right in polycystic degeneration. The larger size of the right may be due to the swelling and congestion of inflammation. This is interesting in explanation of the marked total renal insufficiency, the function of the better right kidney being totally lost on account of the complicating suppurative nephritis. The source of the renal infection is indicated neither by the history nor the postmortem.

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DOCTOR VECKI (Closing).—The futility of surgical interference in polycystic kidney was properly emphasized by the discussions of Doctors Gibson and Kutzmann and I must readily agree with them that it is only indicated in emergency cases.

Doctor Hinman pointed out that a more complete urological examination would have permitted a diagnosis before surgical intervention. The poor physical condition of that patient, however, had to be taken into consideration.

CONTUSION HEMORRHAGES OF THE BRAIN*

By A. M. MOODY, M. D.
San Francisco

THIS discussion will be limited to the type of brain injuries manifested by the presence of contusion hemorrhages or bruises. A few typical examples will be presented to illustrate the lesions in question. I wish to briefly present what these lesions are, where, and why they occur, and their importance. This report is based on gross and microscopic studies of seventy-eight brains examined in the pathological department of the coroner's office of the city and county of San Francisco.

PATHOLOGIC FACTORS AND CHANGES

Injuries to the brain occur as the result of the action of external violence applied either directly or indirectly to the cranium. The damage produced in the brain in any given individual will depend on the direction, point of application, and the amount of force, as well as the resistance of the individual. There are three principal factors concerned in natural resistance, *i. e.*, thickness and shape of the skull, condition of the blood vessels, and a great unknown quantity, the degree of sensitiveness of the brain to shock. For example, a blow from the fist of a prizefighter would kill one individual, yet when applied similarly to the head of one trained to withstand such blows it might have no appreciable effect.

Contusion hemorrhages, so called, are small hemorrhagic foci—usually visible to the naked eye—varying in size from that of a pin-point to several millimeters in diameter, but at times they may exceed one centimeter. They are usually present in the brain substance just beneath the pia mater, where they occur singly or in groups in the principal regions of injury, or they may be scattered here and there through the entire brain. There is no part of the brain in which they have

* Read before the Pathology and Bacteriology Section of the California Medical Association at the sixtieth annual session, San Francisco, April 27-30, 1931.

not been found in this series. Occasionally only deeply seated lesions are present.

For examination purposes, it is best to harden the brains in 10 per cent formalin solution before making a search for the *deeply* seated lesions. After fixation the brain is sliced transversely into sections not to exceed one centimeter in thickness.

These hemorrhages occur at the points of application of the forces concerned in the injury. They may be immediately beneath the point of application, opposite, or scattered, because of widely disseminated acting secondary forces within the brain. The location of the lesions is different in a falling body than in one which is stationary when the violence is applied. Time will not permit a detail discussion of the mechanics of the problem. Concussion forces, direct or transmitted, are largely responsible for this type of lesion through mechanical rupture of small blood vessels. If the blood vessels are diseased, then larger hemorrhages, immediate or delayed, occur.

These lesions are of importance, first, because they may cause death if properly located; second, they result in points of lowered resistance sufficient to account for the invasion of bacteria which may cause abscesses or meningitis or both; third, they account for later mental impairment of varying degrees; and fourth, they are pathognomonic signs of injury. In medico-legal work it is of great importance at times to determine whether death is traumatic or the result of natural causes. This series contains instances where both types of lesions are present.

The seventy-eight brains which were examined and which are herewith reported were removed from the bodies dead from known accidental and unknown causes, by Dr. A. A. Berger, autopsy surgeon. In other words, they were taken from a certain group which must pass through the routine of the coroner's office—such as persons killed in automobile, street-car and other accidents, suicides, homicides, fistic encounters, and those found dead on the bathroom floor, etc. Several with gunshot wounds of the head were included. Thirty-four of these dead persons had no skull fracture, while several of these had no evidences of injury to the scalp or pericranial tissues. Thirty-eight had fractured skulls and six of them had penetrating wounds as the result of gunshot.

There are seven instances of purulent meningitis complicating the injury. Two of these occurred in individuals without skull fractures.

The brain lesions in some were incidental to the principal causes of death. Where the events preceding death are unknown, one can oftentimes obtain considerable information about them by carefully noting the distribution of the lesions.

In conclusion I wish to state that this report is made merely to call your attention to a type of lesions commonly present in brains after seemingly trivial injury, but which may be of great importance from both medico-legal and clinical standpoints.

Saint Francis Hospital.

ON PREMEDICAL EDUCATION*

By I. MACLAREN THOMPSON, M. B.
Berkeley

MEDICINE presents itself as a study and as a profession. The study of disease is a pure science. The application of that science to the prevention of disease and injury and to the care of the sick and injured appertains to the profession of medicine, which hence deals essentially with an applied science. The medical applications of science may be considered as falling into at least two categories: (1) epidemiological, wherein attention is directed toward the *disease* as an entity, mankind being considered only in the mass; (2) clinical, wherein attention is focused primarily upon the *patient*, the disease being considered only in the light of its effects upon the person in question. In this latter, the ordinary type of medical practice, mankind is considered individually.

Disease is perhaps most helpfully thought of as a set of phenomena (structural or functional or both) occurring within the body (or mind) in response to a certain stimulus or combination of stimuli. At least in many cases, the observed phenomena constitute the normal reaction of that individual at that time to that stimulus; for example, a temperature of about 102 degrees Fahrenheit is a normal reaction on the part of an individual who is battling for his life against a horde of invading pneumococci. In biology (including medicine) the fundamental unit is the individual; since no two human beings are quite alike, either structurally or functionally, they differ, among other things, in their reactions to abnormal stimuli. Hence people exhibit biological differences both in their manifestations of disease and in their responses to treatment. For this reason clinical medicine must be the medicine of the individual.

MEDICINE AS AN APPLIED SCIENCE

As an applied science, medicine differs from other applied sciences in the nature of its material—human beings; herein, of course, lies its importance and its fascination. In this connection may I quote the following from the pen of Lord Moynihan: "To give courage to those who need it, to restore desire for life to those who have abandoned it, with our skill to heal disease or check its course—this is our great privilege. Ours are not the mild concerns of ordinary life. We, who like the Happy Warrior are 'doomed to go in company with Pain and Fear and Bloodshed,' have a higher mission than other men and it is for us to see that we are not unworthy."

This peculiar nature of the material with which we work places upon the medical profession almost unparalleled responsibilities. Think, for example, of the responsibility that is his whose patient may possibly be suffering from bubonic plague. Naturally, unusual powers and privileges are granted to the members of such a profession.

* Being the substance of some after-dinner remarks addressed to the Premedical Club of the University of California on September 15, 1931.

Some of these are picturesquely described by Rudyard Kipling: "If you fly a yellow flag over a center of population you can turn it into a desert. If you choose to fly a Red Cross flag over a desert you can turn it into a centre of population towards which, as I have seen, men will crawl on their hands and knees. You can forbid any ship to enter any port in the world. If you think it necessary to the success of any operation in which you are interested, you can stop a 20,000-ton liner with mails in mid-ocean till the operation is concluded. You can tie up the traffic of a port without warning given. You can order whole quarters of a city to be pulled down or burnt up; and you can trust to the armed co-operation of the nearest troops to see that your prescriptions are properly carried out."

THE ART OF MEDICINE

Perhaps the respect wherein medicine differs most from other applied sciences is that in medicine the application of science differs in each and every case, since, as we have seen, ailing mankind must be treated individually. Hence, whereas in most other applied sciences the working out of the application is itself largely a scientific procedure, in medicine the application of the physician's scientific knowledge to each individual case is often very largely an art—the *Ars Medici*. It is the importance of this artistic element in practical medicine that links it with all other forms of intellectual activity. Medicine is often thought of (for example, by premedical students) as somehow different from other pursuits; so it is, in its material and responsibilities, but not in its essential nature.

This fundamental oneness of medicine with other intellectual activities is attested to by the number of distinguished medical men who have achieved distinction in other fields of intellectual endeavor, of which I shall mention only literature and poetry. Let me cite one or two examples.

You are all familiar with the delightful writings of Oliver Wendell Holmes, but do you know that for some five and thirty years he was professor of anatomy at Harvard?

Some of you, at least, know the story of Sir Ronald Ross's brilliant demonstration that the organism of malaria passes part of its life history within the body of a mosquito and that consequently these insects are the agents whereby the disease is disseminated; and of his success in controlling malaria by eradicating the mosquito. The significance of this is thus indicated by Sir Arthur Shipley (referring to the hypopharynx of the insect): "It receives at its base the products of the salivary glands of the mosquito, and it is these products which contain the organisms which cause malaria—a disease which has probably caused more trouble and played a greater part in the history of the world than any other malady to which humanity is heir. Down this minute microscopic groove has flowed the fluid which has closed the continent of Africa for countless centuries to civilization, and which has played a dominating part in destroying the civilizations of ancient

Greece and of Rome." Ross's work aided greatly in making possible the construction of the Panama Canal. And the same intellect that could conceive and triumphantly consummate so magnificent an advance in medicine (both scientific and practical) could celebrate the victory in the following paean:

This day relenting God
Hath placed within my hand
A wond'rous thing, and God
Be praised. At His command

Seeking His secret deeds
With tears and toiling breath,
I find thy cunning seeds,
O million-murd'ring Death.

I know this little thing
A myriad men will save.
O Death, where is thy sting?
Thy victory, O Grave?

One other instance—John McCrea. It is your fortune to be of a generation to whom Flanders Fields are but a hearsay, and you know not the poem. John McCrea was a distinguished Montreal physician who laid down his life in Flanders Fields. Some of his poems are the speaking of a noble soul in anguish, for, like a true physician, he understood suffering. I wish to read to you four stanzas from his poem *The Unconquered Dead*.

* * * * *

That day of battle in the dusty heat
We lay and heard the bullets swish and sing
Like scythes amid the over-ripened wheat,
And we the harvest of their garnering.

* * * * *

We might have yielded, even we, but death
Came for our helper; like a sudden flood
The crashing darkness fell; our painful breath
We drew with gasps amid the choking blood.

The roar fell faint and farther off, and soon
Sank to a foolish humming in our ears,
Like crickets in the long, hot afternoon
Among the wheat fields of the olden years.

Before our eyes a boundless wall of red
Shot through by sudden streaks of jagged pain!
Then a slow-gathering darkness overhead
And rest came on us like a quiet rain.

* * * * *

My thesis, then, is that there is no essential difference between fine achievement in medicine and in any other field of intellectual endeavor. Hence, since medicine is but one phase of human achievement, it can be rightly regarded only by those who enjoy some appreciation of other expressions of the human intellect. Doubtless this idea was in the mind of the distinguished professor of anatomy who is said to have included in an examination paper in his subject this question: "What does Beethoven mean to you?" Perhaps, after all, that is no more absurd a test of a man's fitness for medicine than is his necromantic dexterity in identifying and "siding" an isolated carpal bone with his eyes shut.

You will observe that we started with medicine and we have ended with Beethoven. Do you see what I am driving at? Do you perceive that I am discussing premedical education? What do you

premedical studies mean to you? Merely the learning of a lot of facts classified as chemistry, zoölogy, and so forth, which you are vaguely given to understand would be technically useful to you in your medical studies if you could remember them? Just a scramble to secure the grades necessary for admission to the medical school? May I not trust that, in spite of their technicalities, your present studies are serving to introduce you to what has been—and is being—accomplished along various lines of intellectual endeavor, so that you may view medicine in its proper perspective in the sphere of human activities and appreciate the significance of artistry in all high human achievement, including medicine? Otherwise your premedical studies are missing the mark.

Possibly my remarks have disappointed you. You expected a professional talk, thrilling you with medical examples of the technical utility of learning physics, zoölogy, etc.—a sort of premedical pep rally with myself as cheer leader. And of course you fully expected to hear a great deal about anatomy, and what a *very* important subject it is. And instead of these really interesting things, you have courteously sat there and listened to poetry. You asked for bread and I may have given you a stone. Is there any hope of forgiveness?

Division of Anatomy, University of California Medical School.

PSITTACOSIS*

By GILES S. PORTER, M. D.
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TO meet the requests for information regarding the clinical symptoms of psittacosis, the following brief description is offered:

Etiology.—The etiologic agent, from the experimental evidence at hand, appears to be a filterable virus. The incubation period in man has been established as eight to fifteen days. Cases are on record on which it has been shorter and a few cases indicate that a longer period may occur, but in a very large majority of the cases recorded in the medical literature since the disease was first identified as psittacosis the incubation periods have ranged from eight to fifteen days.

SYMPTOMS

As a rule, the onset is sudden, differing in this respect from typhoid fever. The initial symptoms are usually chills, malaise, vomiting, and headache. In some cases there have been drowsiness and apathy in the early stages; in others there has been insomnia, excitement, or even delirium. Diarrhea is a frequent symptom in the initial stages; in some cases, however, there is constipation.

There are always pulmonary symptoms; the pulmonary focus forms gradually toward the end of the first week. The pneumonia is atypical.

Vesicular breathing is replaced by bronchial and that often by absolute silence, leading the physician sometimes to diagnose an effusion. This may be limited to one lung, but frequently the other lung will become similarly affected. Pulmonary symptoms continue until the temperature subsides and frequently longer. The consolidated patches then soften rapidly and completely dissolve, leaving no trace in the lung. The pulmonary symptoms do not seem to be the immediate cause of death, for dyspnea may be intense before they set in. A typical symptom is the almost complete absence of expectoration, even when the pulmonary symptoms are serious. The patient coughs, but often very slightly and is hardly ever distressed by it. When there is expectoration, the sputum is mucous or mucopurulent and sometimes rusty, but it is never blood-stained as in open pneumonia or the abundant mucopurulent sputum of bronchopneumonia. When examined bacteriologically, the sputum reveals the presence of non-specific microorganisms: staphylococci, streptococci, and pneumococci. However, infection has been produced in experimental animals through the inoculation of filtered and unfiltered sputum, indicating that the virus of psittacosis is in the sputum of individuals with lung involvement.

The cardiovascular symptoms are fairly constant. In spite of the high fever (103 to 104 degrees Fahrenheit) and severe pulmonary symptoms the pulse is never very rapid, usually fluctuating between 90 and 100. In some cases recorded, the pulse went as high as 120 or 130, but these cases proved fatal. The relative slowness of the pulse, accompanied by high temperature, is of assistance in diagnosing the disease, and although it is also a sign of typhoid fever it is of value in distinguishing psittacosis from pneumonia. The pulse is often dicrotic.

The digestive symptoms are not particularly marked and are not pathognomonic. The tongue becomes coated early; the center of the tongue may be chalky white and the edge red. Abdominal distention is common. Diarrhea is not a constant symptom and may be replaced by constipation. Vomiting may occur in the initial states, and intense thirst has often been observed.

The nervous symptoms are usually very marked. As stated above, drowsiness, apathy, and stupor may occur at the onset. Severe headache is another constant symptom, generally occipital although it may be frontal. The headache may persist through convalescence. The patient is always depressed and there is a tendency to collapse. Patients often complain of muscular weakness and occasionally stiffness of the neck.

The kidneys are often affected and albuminuria may be severe.

A leukopenia is usually found, but such is not pathognomonic, as leukocyte counts up to 26,000 have been observed. The differential diagnosis must take into account influenza, typhoid fever, and pneumonia.

Psittacosis patients are pale and weak. Perspiration is reported by some as a pronounced feature throughout the disease.

*From the California State Department of Public Health, by Giles S. Porter, M. D., Director of the Department.

As a rule, the symptoms begin to disappear about the tenth day, the temperature subsides and the pulmonary symptoms disappear, but in fatal cases the crisis may intervene about the fourth or fifth day of illness. The nervous symptoms predominate. There is a pronounced drowsiness, high fever, and marked prostration. The pulse becomes more rapid and death supervenes from cardiac weakness—sometimes even before the pulmonary symptoms have reached their maximum. In other cases death does not take place until the tenth or twelfth day of the illness, with symptoms of cardiac weakness and bronchopneumonia or from pulmonary edema. Uremia may be the cause of death. There is often a relapse just when the temperature is beginning to subside.

DIAGNOSIS

The disease cannot be accurately diagnosed unless all of the etiological conditions are ascertained and it is known whether the patient has been in contact with a sick parrot, parrakeet, or love bird. The diagnosis must be made by comparison with the symptoms of influenza, typhoid fever, lobar pneumonia, and bronchopneumonia. In influenza there is no stupor as in typhoid infection, the pulse is usually rapid and there is pronounced dyspnea and abundant expectoration. In typhoid infections, on the other hand (with the exception of typhoid pneumonia) the pulmonary symptoms are not so marked and are atypical as in psittacosis. The sudden onset distinguishes it from typhoid fever. Pneumonia and bronchopneumonia usually develop separately without being accompanied by a typhoid condition, and in acute lobar pneumonia the respiratory silence is not so typical as in psittacosis, which observation has led physicians to mistake psittacosis for an atypical form of pneumonia.

It must be admitted, however, that there exists no absolutely pathognomonic symptom of psittacosis and that in this disease, knowledge of the etiological conditions alone can assist the physician in his diagnosis.

SYMPTOMATOLOGY IN PARROTS

The *Report of the League of Nations* has issued the following statement regarding the disease in parrots:

"Psittacosis, or parrot disease, has for a very long time been known by bird dealers to exist among these birds. The period of incubation of the disease among parrots apparently varies from three days to several weeks. Usually the disease is ushered in by a kind of sleepiness, fatigue, and loss of appetite. The bird refuses all food, but is often tormented by thirst. Its feathers become ruffled, and rapidly moult. It remains motionless upon its perch, and is subject to fits of shivering. Severe diarrhea then sets in, with foul-smelling yellow or green stools, sometimes streaked with blood, and mixed with mucus. The bird looks weak and listless, and keeps its eyes closed. Its

feathers become dirtied with droppings. Death normally occurs after three or five days amid convulsions or paralysis. Few survive as long as the eighth or tenth day of the illness. If they do so, the disease takes an almost chronic form, and respiratory symptoms appear. The bird has difficulty in breathing, and snores. The dyspnea continues to increase, and there is sometimes abundant secretion from the nose and eyelids. The bird very quickly loses weight, and often ends by becoming blind.

"On postmortem examination, the first thing observed is the considerable loss of flesh, as has been well described by Bruno Heymann. The muscles appear striated; the abdominal organs are very congested; numerous ecchymoses are often found in the peritoneum. The spleen is enlarged and of a flaccid consistency, the kidneys also. The upper surface of the liver shows whitish-gray miliary nodules, which also occur in the parenchyma; the cardiac muscle is often dark red and hemorrhagic. A fibrinous fluid is sometimes found in the pleura. Finally, when the disease is prolonged, small foci of lobar pneumonia and hemorrhagiae often appear in the lungs."

PSYCHIATRY AND THE CRIMINAL*

By HERMAN M. ADLER, M. D.
Berkeley

DISCUSSION by Joseph Catton, M. D., San Francisco;
Thomas G. Inman, M. D., San Francisco.

IN order to avoid any possible misapprehension with regard to the title of this paper, let it be said at the outset that no attempt will be made to indicate that the criminal is insane, or even abnormal in the medical sense of the word. It may be unnecessary to give this assurance, and yet even the medical profession does not always escape the general tendency toward a partisan attitude concerning the relationship of psychiatry and criminology. It may, therefore, be just as well before proceeding with the subject to undertake to define at least approximately some of the concepts or terms which are essential to a discussion of either psychiatry or the criminal.

DEFINITIONS OF TERMS EMPLOYED

Psychiatry.—The term "psychiatry," when regarded strictly, means the "treatment of the mind." Psychiatry is, of course, definitely a medical specialty. The history of its development shows a dual and parallel progress. On the one hand, due to increasing understanding and improvement of the technique of neurology, there has been a gradually increasing knowledge of the nervous system and of organic lesions of the peripheral and central portions of the nervous system.

*Read before the Neuropsychiatry Section of the California Medical Association at the sixtieth annual session, San Francisco, April 27, 1931.

The other advance has been a purely practical one, quite apart from any special knowledge in the field, and was forced upon the profession by the necessity for creating special asylums and, later, hospitals for the insane.

This duality is still quite apparent, and sometimes leads to sharp demarcations between neurology and psychiatry. In the main, however, if the interest were confined entirely to the neurological aspects of this subject there would be little need for consideration of the sociological implications or even of criminology. We could afford to leave all of that to the jurist and to the psychologist.

Sociology.—Due, however, to the development of the state hospitals with their gradual return from isolation in the country to the vicinity of the centers of population; to the work of psychopathic hospitals; and, in more recent times, to the increasing activity of the psychopathologist, and especially the psychoanalyst, psychiatry has been brought not only into contact with the social problems of individuals and of the community, but it has been forced to assume definite responsibility in this field. This change, then, represents a shifting of emphasis from an original interest in disease alone to an interest in behavior. The psychiatrist has come to be concerned with what people do and why, rather than with an attempt to discover disease in particular localizations of the central nervous system. As a result of this the psychiatrist often appears to be actually more interested in the social than the purely medical problems of his patients.

This overlapping of psychiatry and sociology is not the only one, for while this change was going on in the psychiatric field, a parallel extension of interest was being manifested by psychology. It turned away from the older concepts of philosophy and came to occupy itself more and more with experimental undertakings, especially with those in the fields of psychopathology, animal behavior, and child study. This has led to the gradual breaking down of boundaries and to a fusing of interests, and even to an overlapping of functions in different branches of scientific enterprise.

MAIN INTERESTS OF PSYCHIATRY WHICH DISTINGUISH IT FROM SOCIOLOGY

Psychiatry, however, has retained from the very beginning two main interests which differentiate it from sociology. These are, first, its concern with the problems of *individuals*, and second, its concern with *abnormalities*. When psychiatry applies itself to criminology it does so because of its interest in the criminal. Instead, however, of confining itself to the search for abnormalities in the older medical sense, it now occupies itself more with deviations of behavior and motivations. Now it is impossible to deal with behavior and motivations of behavior with-

out extending one's inquiry beyond the immediate person of the individual studied. Behavior is an extension or a projection of the personality into the outer world. The success or failure of any single behavior sequence may or may not indicate recognizable abnormalities within the individual, but a succession of unsuccessful or dangerous or incongruous acts justifies at least an inquiry on the part of the psychiatrist or the psychopathologist. The psychiatrist, then, must widen his territory to include the major social relationships of his patients, and even to attempt an approximate evaluation of the social and other environmental factors concerned. It is inescapable, therefore, that psychiatry is concerned with social phenomena, because it is necessary to evaluate the social elements in each situation in order to understand the individual.

Study of the Individual.—In studying the individual there are only two ways of finding out what is going on in his mind. One is to consider what he says about himself, and the other is to see what he does. We must consider what he says, however, in the light of what he does. In order to evaluate what he does we must know the setting, the history, the rôle that others play in the particular affair, and many other social, environmental, and antecedent factors.

All of this goes to prove that there is no sharp boundary between psychiatry and the social sciences. They merge imperceptibly into one another. When psychiatry concerns itself primarily with organic disorders it may be regarded as primarily medical and not social. The differentiation between sociology, let us say, and psychiatry lies in the fact that the emphasis is placed on groups and social generalizations by the sociologist, whereas the psychiatrist, even when he is concerned with social phenomena, still adheres to the study of a given individual at any one time.

Concern With Abnormalities.—However, even with this analysis of the relationships and interests between psychiatry and sociology, one cannot make it clear what attitude we should take toward the criminal. Are we to continue to regard the criminal, on the one hand, as being definitely abnormal by constitution and heredity, as Lombroso would have had us do, or are we to assume the reverse, that he differs in no wise from the successful, law-abiding citizen? Furthermore, is it necessary to choose between these alternatives? It is possible that the future may some day give us a clear basis for the answer to the first question. At the present time all one can say is that all attempts to differentiate criminals from non-criminals on any other basis than a purely behavioristic one have been failures. Following the strict and legal definition of crime, it is, of course, extremely simple to make a distinction. A criminal is a person who has been convicted of a crime. A person who has not been convicted, whether

or not he has committed a crime, is not a criminal. Such an extreme statement shows the absurdity of the attempt. It is more in accord with present-day scientific thinking to ignore sharp distinctions and to adopt the functional or kinetic view of life. We are dealing with relationships, and not with definite, specific, clear-cut entities. We are dealing with problems having a preponderance on one side or the other of a complicated balance. We are dealing with an organism of great complexity of structure, and one in which all parts are connected and inextricably involved with each other; with one which is constantly changing due to stimuli without and within, due to shifting in balance here or there; with integration of body and mind, and of individual and environment. This stupendous mechanism, responding immediately, or with delay, by purpose, by accident, by impulse, by instinct, or by design, maintains its equilibrium more or less delicately, makes errors, quickly, slowly, or not at all. It sets in motion a chain of events which may react upon itself favorably or unfavorably, promptly, or at some future time. It fails to escape influences which may be advantageous or disadvantageous to itself. It may assert itself and assume the leadership of others, and lead them, by accident or by design, toward happiness or toward disaster. It may subordinate itself to the leadership of others or to an idea, which may result in one or the other of diverse experiences.

Without engaging in controversial discussion of such problems as free will or good and evil, it must be clear that the human being is constantly performing many acts of balancing; not only mechanical acts, such as walking, standing, running, but also acts such as the inhibiting of emotional responses in order to gain time to select more fitting ones.

It is the function of the psychiatrist to study these mechanisms in order to attempt to evaluate the fitness and accuracy of the responses. There are two criteria which are important in the psychiatric study of these phenomena. They are the *accuracy* of the response; that is, does the act fit the circumstances or the setting, and the *speed* with which the response is made. A response may be good in itself, but may be ill-timed. It may be too fast or too slow. Sometimes delay does not mean sober judgment and consideration, but inability to come to a decision. Sometimes speed of reaction indicates poor control.

I want now to mention the present-day attempt to study and explain the individual on the basis of his own peculiar circumstances of life. These circumstances include everything that can be regarded as having any important bearing upon the human being: so his heredity, his parentage, his economic status, his development, physical and mental and social, his memories, his likes and dislikes, his tastes and antipathies, his successes and failures, are all studied. In the light of these

findings an attempt is made to elucidate a given criminal act, to determine the possibility of the repetition of such an act, to ascertain the possibility of successful treatment, the amount of labor, time, and expense involved in reëducation, and finally to evaluate the expediency or practicality of making such an attempt.

This movement and this technique, which has many successes to its credit, and which has supplied much interesting and illuminating information about the development of personality, is one which cannot now, and perhaps never can be, adopted on a scale sufficiently large to deal with the problems of the community as a whole. One of the important contributions which this specialty has made to the subject of criminology is, nevertheless, that it has disclosed the possibility of working with subjective material and subjective factors.

SOCIOLOGY, PSYCHOLOGY, AND CRIMINOLOGY DEPENDENT ON STUDY OF SUBJECTIVE FACTS

Modern psychology has demonstrated the possibility of attacking a number of facts, which are none the less facts because they are associated with feelings. To say that one is hungry or thirsty is something which cannot be demonstrated objectively even though a very strong presumption may be reached. Sociology and psychology, and, of course, criminology, are dependent almost entirely upon the latter sort of facts.

A clear recognition of the necessity for accepting the subjective elements of analysis is extremely important if any progress is to be made in this direction in the field of criminology. It is also necessary that the members of the legal profession and the law-enforcing officials and the medical profession shall recognize that utilization of subjective elements does not mean that less clear thinking exists, or that there is less precision in definition or in the criteria upon which judgments are based than is the case in other departments of the biological sciences.

RÔLE OF PSYCHOPATHIC PERSONALITY IN CRIMINOLOGY

With this in mind it may be possible to clear up even that hazy field of the psychopathic personality which unquestionably plays such an important rôle in criminology. The fact that we are dealing with subjective elements does not justify us in playing an open-and-shut game with the concept of psychopathic personality. To say that a criminal is by nature callous, unfeeling, cruel, and vain is true or not true according to what one means by the term "by nature." In most instances the term "psychopathic personality" is reserved for those individuals who cannot be placed in the category of the insane or mentally deficient, and who yet persist in antisocial behavior. Such individuals are likely to prove exasperating to the psychiatrists, even as they are to their families and to the officers of the law. In fact, it is undoubtedly true that the term "psy-

chopathic personality" has often been applied to a person for no better reason than that the psychiatrist did not like him.

If one reserves the term "*psychopathic personality*" for individuals who exhibit behavior which indicates desires, the gratification of which are dangerous to themselves and to others, a group will have been created which includes the hardest nuts to crack which are presented to the police officials or to the psychiatrists. This is because we have eliminated those seriously disordered individuals whom we can recognize as psychotic or feeble-minded and for whom a very definite environment and treatment has been developed. We have also eliminated the neurotic. The *neurotic*, while actuated by conflicting motives and desires, is a menace, if at all, only to himself. He is eager at all times to talk about himself and his troubles, and he insists upon seeking the aid which he so definitely needs. These patients are loyal to the psychiatrist unto death. They do not antagonize him; on the contrary, they flatter the vanity of the psychiatrist whom they consult, even though they sometimes exhaust his patience.

Not so the *psychopath*, who does not recognize that there is anything wrong with him. The more serious his case and the more dangerous, the less he recognizes his need for help. He has contempt for anyone who would presume to regard him as abnormal and resists, sometimes violently, every effort to assist him and to protect the community against his dangerous propensities.

It is this type which presents the most serious problem, not only to the psychiatrist, but to the law-enforcing agencies of the community, and since the definition, although it may be precise, has to be applied on the basis of subjective evaluations, it is not a simple matter to devise suitable treatment.

It is unnecessary at this time and before such an audience as this to point to the diminishing importance in a criminological sense of the concepts of *mental deficiency* and of *psychosis*. Important as these two concepts are, they represent the same problem among the criminals that they do in society at large—no more, no less. Any appearance of unusual importance which they may possess in this field is the result of hope on the one hand, and on the other of the partisanship which so frequently accompanies any attempt to evaluate the various factors in a given career. So long as the determination of the mental condition of a criminal is made largely dependent upon the proceedings of the court, a partisan attitude can hardly be avoided. The defendant stands charged with a crime. Either he pleads guilty or he defends himself against the charge with the presentation of all the evidence that may aid his plea. If, therefore, his side introduces evidence as to peculiarities of mind or body, this evidence cannot be considered impersonally, as for instance, his body temperature might be considered. Such evidence will be used as an excuse on the one hand, and as a target for the opposition of the prosecution on the other.

This is not the only reason why it is perhaps incorrect to regard the criminal as a sick person.

If the idea of sickness is extended, it will include every deviation from top-notch, healthy functioning, and practically everyone will be included at one time or another. One must regard the criminal as, in the main, one who manifests disorders of personality and behavior which require somewhat different consideration from that accorded the patient in the hospital. Such logic has long been followed by teachers in the classroom.

RECOMMENDATIONS OF FIRST INTERNATIONAL CONGRESS ON MENTAL HYGIENE

So long as we are not allowed to consider the pathology or abnormality of the individual criminal except under the cross-fire of charges and defenses, it is hardly worth while to utilize the information which we possess. Unfortunately, in the field of criminology this partisanship extends even beyond the courtroom. After conviction the emphasis is placed upon punishment, and the public becomes, because of fear of the apparently increasing crime rate, more and more revengeful in its demands. Before we can give any serious consideration to whatever contribution psychiatry can make to the treatment of the criminal or to the prevention of crime, it is necessary to effect a change in the whole legal process. Realizing this fact committees representing the American Psychiatric Association, the American Bar Association and, more recently, the American Medical Association, have been working upon this problem. The most recent recommendations are those made by committees of the First International Congress on Mental Hygiene. In conclusion, it seems to me that I can do no better than to submit these recommendations for your consideration as the first step toward making possible a program of treatment, and possibly of prevention:

Recommendations of the Committee on Mental Hygiene Work in Prisons and Among Delinquents:

1. For the purposes of insuring justice and intelligent disposition of the offender, greater protection to society, and marked reduction of the objectionable features of partisan psychiatric expert testimony, a routine mental examination of accused persons should be made before trial. This should apply especially to juvenile offenders, and to adults charged with serious crime, with the ultimate objective in mind of applying this procedure to all accused persons, as soon as the machinery of the courts becomes adapted, and adequate psychiatric personnel can be secured.

2. Provision should be made at once to furnish to the courts the impartial psychiatric advice of some official body in such cases as the courts may desire it. The courts should be permitted and encouraged to commit to a mental hospital for observation any defendant who pleads insanity as a defense or in whose case there is doubt as to his sanity.

3. Convicts found to be psychotic while serving sentence should be at once removed from the penal institution to an appropriate hospital where adequate treatment and care may be obtained of a grade and standard as high as that accorded to civil mental patients. For the purposes of such adequate care, hospitals are deemed preferable to the so-called "insane wards" of prisons. The release of psychotic patients with criminal tendencies should be carefully safeguarded.

4. We urge the establishment of separate institutions, or departments for the care of mentally defective and psychopathic offenders, with provision for a truly indeterminate period of segregations, the release of such offenders being conditional and based

upon adequate medical, sociological, and psychiatric studies.

5. In addition to a mental examination before trial, we recommend the psychiatric study of all prisoners committed to penal and correctional institutions, an aid to their proper classification, occupation, discipline, and release.

6. We recommend that all juvenile offenders be dealt with by separate tribunals, the purpose of which shall be corrective rather than punitive; such tribunals to be equipped with adequate probation service. We also recommend that all such offenders be submitted to psychiatric study before final disposition of their cases be made.

Recommendations of Committee on Legal Measures and Laws:

1. Admission to a mental hospital for treatment should be made as informal and easy as the constitution and laws of the country will permit. To this end we further recommend that jury trials on the issue of insanity for commitment be abolished; that the presence in court of the patient to be committed be not required, but within the discretion of the judge; that the voluntary admission of patients who are seeking treatment and who are competent to make such applications be encouraged, and that those countries and states which do not have such laws be urged to adopt them. Laws also should be adopted as speedily as possible for the temporary care and study without formal commitment of patients upon the recommendation of a physician, as well as for provision for the commitment of patients for a period of observation.

2. We recommend that provision be made, wherever it does not now exist, for the release of patients on parole and supervision during a period of convalescence, such patients to be allowed to return to the hospital without further legal proceedings should their condition necessitate return. We recommend, further, that provision be established for the discharge of recovered patients without their needing to have recourse to legal proceedings for this purpose.

3. We recommend that provision be established along the lines of the Massachusetts (U. S. A.) procedure for the routine psychiatric examination before trial of persons charged with serious crime, and that such examination be made by an impartial body. We recommend, further, that in all instances where doubt arises in the mind of the court, provision be made for the examination by an impartial body of the prisoner's mental condition and, if necessary, for a period of observation in a mental hospital. We make these recommendations as a result of a conviction that only in some such manner can the confidence of the public in the defense of insanity be restored.

4. We recommend that the judges be given sufficient discretion to make disposition of prisoners in accordance with findings of abnormal mental conditions not sufficiently marked to constitute legal "insanity," and that means be provided, such as court psychopathic clinics and other means, whereby the court may be properly advised on these subjects.

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DISCUSSION

JOSEPH CATTON, M. D. (490 Post Street, San Francisco).—Doctor Adler has indicated the relations of psychiatry to sociology and the law. He has shown us definitely that the psychiatrist's job is only partly done when he deals with the patient as an individual. He has shown that the psychiatrist, having the qualifications for such service, must answer society's demand that psychiatry aid in the orderly running of the social body and in the administration of law and justice. He has gone over in theory, and has painted for us, the ideal status under which psychiatry might play these rôles. He has indicated the need for modified and new legislation to make these better conditions possible. He has stressed a very, very important attitude of mind toward the psychopathic individual, to wit, our studies and understanding of psychopathic

individuals charged with crime must not carry us to the point of placing a label on them of "mental sickness" and then advising and acting on the basis of such determination. On the theory that the criminal with psychopathy is an ill man, we would reach into our penal institutions and begin to excuse, and to coddle, and to treat those persons, placing them in the same status as the frank psychotic and mentally defective individuals. Such an attitude would make it entirely impossible to have a well-ordered society.

These considerations drive me into a position somewhat different from that assumed by Doctor Adler. I believe that society's philosophy must necessarily be somewhat pragmatic, even if it appear not entirely sound, viewed through the eyes of medicine and psychiatry. If we travel the whole psychiatric route in our approach to these problems, we may find ourselves bothered as to whether there is any such thing as personal responsibility. Yet the whole structure of the law is developed on just that basis. If we follow the psychiatric route toward many a medico-legal problem, whether the problem be in relation to a criminal or be entirely a civil matter, we will find that psychiatry in its present stage of development is able to offer much, but *not enough* to make final determination in these matters. If a crime has been committed, a court or jury must decide the question of responsibility; if a will be written a court must decide its validity. If a person is alleged incompetent a court must make a decision. In each of these situations the court's decision must be definite and prompt if society's machinery is to be kept running. My point is this: we know that there are defects in human nature and human behavior, expressing themselves not only in society in general but in medicine and the law as well, and until such time as medicine, psychiatry, and sociology have become so perfect that the facts will indicate promptly and with finality that this person is responsible for his acts; that that person's will is valid, etc., the law must set up certain rules by which decisions may be promptly made and society allowed to go about its other business. Psychiatry must recognize its capacities to serve the law and must continue to insist that methods be worked out for the proper presentation of its case before the law. Psychiatry, however, must recognize its limitations: it is but one facet of the diamond of society, a jewel as yet most crudely cut. Psychiatry must recognize that it cannot take over the work of the law and that it will find its eventual place in the social structure much more quickly if it will confess frankly its limitations at the same time that it makes its demonstrations and assertions of capacities.



THOMAS G. INMAN, M. D. (2000 Van Ness Avenue, San Francisco).—It is refreshing to have a psychiatrist of Doctor Adler's sound training and wide experience speak of the "diminishing importance in a criminological sense of the concepts of mental deficiency and psychosis." The idea that crime and insanity are in some subtle way connected one with the other has become too widespread with both the profession and society in general. The facts do not warrant such belief. An individual suffering from a psychosis sometimes does commit an antisocial act—injuring others and himself—but the act is no more to be considered a criminal one than is that of the delirious patient who strikes down his nurse with a water pitcher.

The only function of the psychiatrist in the courts, in the interest of the possible criminal, is to determine whether or not the accused was at the time of the commission of the crime the victim of a psychosis. Expert testimony in the case should be given solely on the medical facts and should not deviate therefrom because of interest in either side.

It is for the purpose of getting this detached, unbiased medical opinion that suggestions for the selection of experts have been formulated by interested groups. The feeling against the present system will, not unlikely, cause some change to be made. Biased

testimony has caused mental derangement too often to be read into the verdict. Society must some day use the knowledge acquired in psychiatric research in the same manner it now uses the knowledge of the engineer and economist for its protection and improvement.

Unfortunately, however, application of medical knowledge to social use is, in this period of our civilization, seriously interfered with by those devotees of eccentric thinking who form pseudoreligious healing cults. These peculiar individuals find their way into social uplift groups, jury panels, and even the judiciary itself. With their antimedical slant, it is almost impossible to obtain a verdict in accordance with the medical facts in any legal case where they act as jurors. Embodied in a group of individuals possessed of some education and with a certain economic strength, this sinister influence is more inimical to the development of a sound social system than all of our defectives, criminal or otherwise.

While social conditions have a definite bearing upon the development of mental disturbance, the real cause lies within the patient himself; and the psychiatrist, in his consideration of these external influences, must not be diverted from the study of the patient and his disease. The duty of the physician is to adjust the patient, insofar as that is possible, to his environment and not attempt to reorganize the environment to suit the patient. Social conditions are formed in ways not always clear to contemporary observers, and attempts to shape the course of social evolution by artificial means may be attended by disastrous results.

LEISURE AND ETHICS*

By J. B. DE C. M. SAUNDERS, M. B., F. R. C. S.
San Francisco

IT is in all humility that I address you on this subject. I shall attempt to indicate what I feel is the spirit which should guide us in our conduct, in our ethics, and how this spirit may best be gleaned by the right *appreciation of art and of nature*.

It is with humility I speak as a fellow traveler who is still struggling along the pathway of experience, who has not traveled far, but who has just begun to see the light dimly shining through the veil of this mysterious life. I would call a halt and ask you to consider the spiritual side of life and work. I make no apology for dwelling on this aspect. As Robert Bridges says of Francis of Assisi: "His following in life and his fame thereafter confute the lower school of Ethick, which would teach that spiritual ideas are but dream-stuff in men."

We who have youth seem to ourselves immortal. "Life is indeed a strange gift and its privileges are most miraculous. Nor is it singular that when the splendid boon is first granted us, our gratitude, our admiration, and our delight should prevent us from reflecting on our nothingness, or from thinking it will ever be recalled. . . . Like a clown at a fair, we are full of amazement and rapture, and have no thoughts of going home, or that it will soon be night."

We cannot inculcate the highest traditions of our profession by work alone. "Moral respon-

sibility—Am I my brother's keeper?"—is the root and spring of purified humanity. This sublime postulate needs no apology, and we shall find neither the desire nor the strength for our task except by a full and frank recognition of that spiritual factor which Meredith so beautifully indicates in the lines:

"Our life is but a little holding, lent
To do a mighty labour, we are one
With heaven and the stars, when it is spent
To serve God's aim."

Life is but a combination of leisure and of work. Our conduct in our work is summarized for us in the Hippocratic Oath. Conduct is based upon character, and our character is affected more by the use of our leisure hours than by those spent at work. Into those leisure hours we must weave our interpretation of life, its mystery and its beauty, until it becomes the very fabric of our being. We may consider these leisure hours as an outlet from the more confining path of professional activity. I would suggest that in art and in nature you will find this outlet toward the better and fuller appreciation of life and the true tradition of our noble profession.

It is not in all of us to appreciate certain forms of art, but in at least one of its branches, whether it be literature, music or painting, we can find pleasure and inspiration, which in turn, almost unknowingly, will influence our ethical bearing and our outlook on our fellow men. Channing, in his "Essay on Milton," says of poets: "They carry the mind beyond and above the beaten, dusty, weary walks of ordinary life, lift it into a finer element and breathe into it a more profound and generous emotion." *Art is but the expression of man's joy in his work*. Let his joy imbue us with enthusiasm to acquire some familiarity with one of art's manifestations. Thus will we in great measure avert any narrowing influence in our increasingly concentrated and more specialized work.

Of *the realm of nature* there is but little that I can say. I should like to quote Dawson, one of our Edinburgh teachers, pathologist and philosopher. "Nature is a realm in which we must live alone, for no spirit can guide another spirit into her manifold mysteries and unceasing wonders. The voices that speak in sea and sky, in river and forest, in the majesty of the mountains and the dreamland of the plains, in flower and grass, are alike within the dominion of the soul. As we grow up and roam alone and the voices of nature speak to us, we learn something of the inner meaning and mystery of all that surrounds us; we come to recognize beauty where we had seen only color, to realize life where we had seen only form."

Thus we fill our leisure hours with beauty—garnered both from nature and from art and we come to reverence it, not for its sake alone, but for the hidden things that lie behind all loveliness—a reverence for all that is best in the world—whether in the beauty of earth, sea or sky, in the realm of art, or on the highroad of life where men struggle and suffer. Thus is our understanding deepened and we are the better

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* Presented before the 1931 senior class, University of California Medical School, on the occasion of the annual presentation of copies of the Oath of Hippocrates by Professor William J. Kerr, M. D.

fitted for the work of our choice. To carry on this work according to the highest ideals and ethical principles must be our aim. Without the spiritual side there can be no ethics, and medicine without ethics is unworthy of the name.

THE LURE OF MEDICAL HISTORY

ESSAYS ON THE HISTORY OF EMBRYOLOGY*

By A. W. MEYER, M. D.
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IV

SHORTLY before Malpighi's observations on the development of the chick were published, an epoch-making observation had been made by a Dutch microscopist, Antoni Leeuwenhoek. This man, who was called an "immortal dilettante" by Professor Becking, a young countryman of his, is usually given credit for the discovery of the spermatozoon. Although Leeuwenhoek may have been a dilettante, he nevertheless made many important discoveries with microscopes made by himself, but which were far superior to any others of the time and were made by the hundred, according to Stein.

THE SPERMATOZOÖN

It is regrettable that Leeuwenhoek's imagination, like Swammerdam's and Harvey's, led him sadly astray. It seems he reported to the Royal Society, to which he had sent so much that was startling and what commissions could not confirm because they had inferior microscopes, that he was able to identify male and female spermatozoa by inspection alone!

Spermatozoa were first seen in 1675 by Hamm, a student of Leeuwenhoek, who is otherwise unknown, in the semen of a man "who had cohabited with an unhealthy woman." It is to the credit of Leeuwenhoek that he quickly apprehended the significance of this discovery, and surmised that the moving, motile bodies which he called seminal filaments really were the male germs of animals. He looked for and found them in the testes of the dog and the rabbit, of birds, frogs, fish, and insects, and also in the tubes and uteri of dogs and rabbits. As Singer emphasized in "A Short History of Medicine," this was a very deserving and important accomplishment in embryology, and he did other things, as Stein and others showed so well. Leeuwenhoek also estimated the total number of spermatozoa in the gonads of some animals and stated that those of codfish contained more than ten times as many sperm as there were inhabitants on the earth at that time. Since there are over a hundred million spermatozoa in a single cubic centimeter of semen of some mammals, and since he thought that the population of the earth might be over thirteen

* This is the fourth paper of a series of essays on this subject. Previous papers were printed in this journal as follows: Part I in December California and Western Medicine, page 447; Part II in January California and Western Medicine, page 40; Part III in February California and Western Medicine, page 105.



Figure 3.

billions, it is evident that Leeuwenhoek approximated the truth fairly well.

Animalcules had long been known to occur in printer's ink, vinegar, and also in putrefying substances, hence it is easy to understand that the presence of similar organisms in human semen not only aroused skepticism and evoked surprise, but also caused disgust. Cole quotes Andry as saying in 1701 that, "If, after you have taken off one testicle [from a dog] and by the aid of the Microscope examined the Humour that comes out of the deferent vessels, you shall discover in it such a hideous number of little worms that you shall hardly be able to believe your own Eyes." But the indispensability of spermatozoa in procreation was not established experimentally until 1780, a century later, when Spallanzani performed the first experimental fertilization in toads, water salamanders and frogs, and proved that filtration of the semen destroys its fertilizing power and that an aura spermatica does not exist.

Whether Hartsoeker, who represented a flexed homunculus in the head of a spermatozoon, or Plantade, who signed himself Dalenpatius, and similarly represented a miniature human being in the extended posture, are to be taken seriously remains a question. Hartsoeker seems to have been known as unreliable and Plantade as a joker. Hartsoeker also stated that the tail of the spermatozoon becomes attached to the uterus and forms the umbilical cord. This idea may well have come

from Ruysch, who among others noticed macerated deformed embryos in early human abortuses. Since some of these had a form roughly suggestive of spermatozoa, as the illustrations after Ruysch in the accompanying figure will show, he and others were misled by it. The embryologists of those days were unfamiliar with the bizarre shapes that embryos may take because of abnormal development or in consequence of maceration changes under sterile conditions in utero after the death of the embryo. Hence it is not surprising that they misinterpreted such forms as represented in the accompanying illustration after Ruysch.

Ledermuller says that Ruysch discovered the spermatic animalcule—*Samenwurm*—in several conceptuses between 1710-1720 and also refers to Leiberkuhn, who found the "spermatic worm" in a human abortus the size of a pea. This abortus is reported to have contained a corpuscle in which three parts could be recognized. Two of these contained blood and the third was composed of a long tail, the whole having been surrounded by a thin membrane, apparently the amnion. Lieberkuhn took the two red portions to be the ventricles of the heart and the third portion the spinal column which ended in the tail which was taken to form the umbilical cord. Since the early belly stalk of man, which constitutes the early umbilical cord, lies in close proximity to the caudal extremity of the embryo, one need not be surprised at this mistake.

GRAAFIAN FOLLICLES

Ten years after the discovery of spermatozoa, attention was directed by Steno, J. van Horne, and Regnier de Graaf to small vesicles so common in the periphery of human ovaries, or testes muliebres, as they were then still called. They could not fail to attract attention, and these investigators concluded that they were ova. Steno, hence, suggested the name "ovarium." It is interesting that the designation "testes muliebres" was still in use, as the legend accompanying the illustration from de Graaf* shows, and that the latter contains a representation (E) of an isolated follicle as though they were extruded or could be shelled out. The relatively large vesicles seen by Steno, van Horne, and de Graaf in mammalian ovaries are known to this day as Graafian follicles, although the term "vesicular ovarian follicles" has been given them in the Basle terminology. De Graaf further observed the ovaries of rabbits after copulation and described some changes which occur in them.

Since Graafian follicles are many, many times as large as ova, de Graaf was greatly puzzled by finding much smaller, roughly similar vesicular bodies in the uterine tubes of the rabbit seventy-two hours after coitus. He tried to reconcile these contradictory observations by suggesting that the reduction in size of the alleged ova in the ovary, that is, of the Graafian follicles, was due to the presence of something in the latter which is used up in the formation of the corpus luteum. Before the mammalian ovum was finally identified, those



Fig. 4.—Plate 3 from Fabricius, illustrating the development of the chick.

who opposed the idea that the female testis was in fact an ovary, as the older anatomists had thought, could and did bring forward unanswerable arguments against the idea that the Graafian follicles were ova.

At this time the word "ovum," as applied in mammals, still was being used in the sense of conceptus. Aristotle had defined an ovum as a body from one part of which a future individual is formed by feeding upon the other part. However, Aristotle further spoke of "animals which engender internally" as having "a certain oviform body produced after the first conception." It was in this sense that Harvey used the word when he wrote that he often saw ova the size of pigeon's eggs containing no fetus, discharged by women about the second month after conception, and that when the ovum was the size of a pheasant or hen egg the embryo could be made out "the size of the little fingernail floating within it."

THE THEORY OF PREFORMATION OR PREEXISTENCE

Although the investigations on the development of plants and insects by Redi and on animalcules by Spallanzani had thrown much doubt on the idea of equivocal or spontaneous generation, the observations of Swammerdam on insects, recorded in "Die Bibel der Natur," seem to have greatly strengthened the foundation of the old theory of preformation or preexistence. The latter term

* This illustration appeared with the preceding installment.



Fig. 5.—Frontispiece, Harvey's first edition (after Malloch).*

* Author includes this and the succeeding frontispiece from Harvey because they are supposed to come from a first edition. It is usually stated, however, that only one first edition appeared in London and three in Amsterdam during the same year. The phrase *ex ovo omnia* is found on the egg-shell in both. It is unknown who introduced these illustrations, but it is not improbable that it was the printer.

was first used by Sir Kenelm Digby in 1644, according to Cole. The skillful dissections of Swammerdam and the brilliant experiments of Spallanzani did much indeed to revive Haller's dictum, "There is no such thing as becoming. No part of the animal body is formed before another. All were created at the same time." This preformation idea was also called the theory of evolution, but according to it organisms were not thought of as slowly unfolding or evolving, but merely as increasing in size from a microscopic miniature to the adult. However, not everyone held exactly the same views regarding preëxistence.

To what extent and in what manner the individual was preformed and how the myriads of preformed individuals were arranged in the sperm or ovum evoked much speculation. One of the oldest ideas was that of emboitment or box within a box, or *Einschatelung* of the Germans. According to Wheeler this was announced by St. Augustine. The Swiss naturalist Bonnet developed and

espoused it especially and regarded it as "one of the greatest triumphs of the human mind over the senses." It met its greatest difficulty in explaining abnormalities and variations and inheritance from both parents, as did all preformation theories. Bonnet, who at one time believed in emboitment *ad infinitum*, later declared:

"I am glad that you have distinctly seen the circulation of the blood in tadpoles, before they yet shewed any signs of motion. Many other intestine movements doubtless take place in germs, before they are sufficiently developed to move their little limbs. If germs are all originally enclosed one within another, many intestine motions must have happened in them since the creation. But this admirable spectacle is reserved for those superior intelligences, whose piercing view penetrates into the most hidden springs of the machine of this world. Much has been said of the involution (emboitement) of germs; the term is improper: germs are not little boxes enclosed one within another; they must have been integrant parts of the first organized bodies that came from the hand of the Creator. I have insisted on this point in one of my new notes on the *Contemplation*. It is of consequence to fix the meaning of terms precisely."

It has been asserted that the modern embryologist is a preformationist and also that he believes in spontaneous generation. Wheeler, for example, asserted that "An exaggeration of epigenesis is spontaneous generation," and Whitman declared: "Both preformation and postformation, as now understood, enter into every theory of development." But epigenesis implies spontaneous generation only if each organism is assumed to arise *de novo* from unorganized material or if the origin of the first organism is considered and the modern embryologist believes in predetermination or predestination and not in preformation. No part of the future individual is regarded as preformed in the zygote though not all its parts are equipotential.

According to Gilis the theory of preformation also won support through a Venetian physician, Joseph of Aromatari, who was enthused over the revelations of the microscope, and while examining seeds was impressed by the resemblances of the germ and cotyledons to a plant and hence announced, in 1625, that all plants were contained in miniature within the seed. Blumenbach also refers to Aromatari and so does Cole.

From painstaking and really very skilled dissections of the larvae and pupae of flies and of butterflies, Swammerdam also was led to conclude that all the parts of these adult animals are contained in miniature in the immature forms. His skill in dissection and representation was unsurpassed, but he allowed his imagination to carry him so far that, according to Boerhaave, he actually demonstrated all parts of the butterfly in the body of a caterpillar at a meeting of scientists. Surely there must have been some doubting Thomases present! Swammerdam apparently was misled by what he saw in the pupal stage, and from the presence of all parts concluded that all organs also exist in the larva and the ovum. This seemed only a small and logical step from his observations upon dissections and this Swammerdam took. He wrongly opposed the idea of metamorphosis, as illustrated in the development of the

butterfly which he studied, but it seems that he was the first to represent developing frog eggs showing cleavage.

Although Swammerdam had observed and represented cleavage in the frog egg and had established the occurrence of external fertilization in the frog, thus disproving the statement of Linnaeus that impregnation can occur only in the living body of the female, he thought that bees were fertilized by a "vivifying aura exhaling from the body of the male and absorbed by the female," and that fishes were fertilized by mouth. He may have come to this conclusion because fishes had not been seen to copulate and because the female occasionally was seen to swallow sperm.

According to Spallanzani, "Reaumur has been led by deceitful appearances to suppose that these insects [bees] perpetuate their kind by real copulation" and he added that the idea of the "celebrated Maraldi" that they are impregnated by a whitish matter voided by the male after the eggs are laid, is completely verified! He also says that Haller thought fishes copulate and that Vallisneri, a Venetian physician, who could not find an ovum in the Graafian follicle, thought that pigeons and sparrows and many other animals were fecundated by mouth and that the function of the spermatozoa was to keep the semen fluid by their motion.

Malpighi also espoused the preformation theory because he found the first rudiments of the embryo in unincubated hen eggs and thought he found them in pupae. He could not be expected to know that fertilized hen eggs are in the gastrula stage of development when laid or that in the warm climate at Bologna, 35 degrees centigrade, this development could continue for a little while, without other means.

SPALLANZANI AS A SUPPORTER OF PREFORMATION THEORY

But the most important supporter of preformation or evolution was the great experimental embryologist, the Abbé Spallanzani, professor of natural history at the University of Pavia, superintendent of the public museum, and fellow of various learned societies. It is impossible to convey an adequate idea of his many experiments on generation in a few paragraphs, but it is illuminating, as well as regrettable, that so assiduous an experimenter should have thought that he brought experimental proof for such a wrong theory. Spallanzani says he announced his discovery of the preexistence of the germ in a species of frog, in his *Prospectus* concerning animal reproduction, published in 1768. In the introduction to his dissertations relating to the "Natural History of Animals and Vegetables," he wrote:

"Having examined other animals, and having found that the same thing is true with respect to them, I have still stronger reason for presuming that the existence of the germ in the female before fecundation is one of the most general laws of nature. . . . I have been led by observations, which show the preexistence of the germ, to discover that an order of animals, considered by naturalists as oviparous, is in reality viviparous."

The learned Abbé also concluded that his experiments on plants, likewise, supported the theory of preformation which he now regarded as a law, as did Bonnet, who said:

"I, you know, have never doubted of this preexistence: all my reflections upon generation, even in my youth, led me to consider it as the most universal law of Nature."

It is significant that the renowned Abbé regarded it as important that an investigator possess truly "philosophical views," and it is very clear from his own work that the possession of such views on his part led him beyond the evidence in spite of the fact that he quoted the following words from a note received from Haller with warm approval. The date of this note was November 5, 1777, and Haller wrote: "Il est toujours temeraire d'attaquer des experiences par des raisonnemens." (It is always rash to attack experiments by arguments.)

Spallanzani based his belief in preformation or evolution or preexistence upon experiments with the eggs of various kinds of frogs, toads, and newts. He could find no difference in appearance between the unfertilized and the fertilized eggs; they were not covered by a shell or skin, as were those of other oviparous animals, and he probably leaned upon the philosophical deduction that matter is indefinitely divisible. He not only believed that the embryo preexisted in the ovum, but that the amnion and umbilical cord also did so even before fertilization, and insisted that ova, hence, were not such, but fetuses. He held that tadpoles of frogs and toads were likewise contained in the ova before fertilization while still in the ovary, saying:

"We are not able to distinguish any before the second year, when two sets appear, viz., the mature ones, those which are to be brought forth that year, and the immature ones, which will be produced the succeeding year. That year the third succession of fetuses becomes visible, and the fourth year the fourth succession; and in this manner one succession only every year."

He carefully examined ova during their increase in size, and wrote:

"During the evolution, I analyzed these corpuscles with the utmost care, and compared them both internally and externally with others in the uterus and oviducts, but could perceive no difference except in size. From this identity, then, it may be concluded that as these corpuscles are real tadpoles when they are without the body of the female, they are so also within it, and by consequence, that the fetus exists in the female before the concurrence of the male. . . . Although the evolution of these fetuses was never so considerable and quick, as after fecundation, it is, however, perceptible before."

That this great investigator was misled by his imagination is clear from the following quotations which also indicate how ardent a supporter of preexistence he was.

"By tracing thus the progress of evolution, we come to perceive that these bodies are not eggs, as Naturalists suppose, but real tadpoles. The furrow and the processes become longer; the supposed egg assumes a pointed figure; the whitish hemisphere dilates, and the black is incurved. The pointed part appears to be the tail of the tadpole, and the other the body. Further, the opposite end takes on the

appearance of the head, in the fore part of which the form of the eyes is visible, though they are yet closed. The two processes also, by which the animal fattens himself to the smoothest bodies, when it is tired of swimming, become evident, as likewise the vestige of the aperture of the mouth, and the rudiments of the gills. . . . It follows, that these species ought to be removed from the class of oviparous animals, to which they have been referred by naturalists and nomenclators, and placed among the viviparous. There is a circumstance here that deserves to be noticed. All viviparous animals have this in common, that their fetuses are at birth full formed, and retain the lineaments which they then have through their whole life; they are only more unfolded. We are further certain, that they have long before birth the form of the species, as is evident from human abortions, as well as those of beasts. In like manner, animals that come from eggs are formed, not only when they are hatched, but long before, as we see in the eggs of birds, various reptiles, crocodiles, &c. If the eggs are broken and examined, we perceive the fetuses more or less advanced, provided they have been fecundated and set to hatch. I have made the same observation on the eggs of insects; when I found they were nearly hatched. I have frequently opened the pellicle, and discovered the embryo formed, and endowed with the power of motion. On the contrary, the fetuses of the amphibious animals, that have been the subject of my researches, are quite shapeless at the time of exclusion, and have only the appearance of globules; it is not till afterwards that the limbs begin to appear, and that they assume the lineaments of the species. Now I think that upon reflection, I can assign the physical cause of this striking difference. The fetuses of other animals have, indeed, at the time of birth, the characteristic form of the species, but they do not acquire it for some time after fecundation. They are at first shapeless, as we see in birds in the egg, which, before they assume their true figure, must undergo the most surprising changes, as has been shewn by Haller, and before him by Malpighi."

That Spallanzani nevertheless proceeded with the greatest care is shown by the following quotation:

"The reader will probably be surprized at this description, since it appears, that the tadpole does not come out of the egg, but that the egg is transmuted into a tadpole; or, to speak more philosophically, that the egg is nothing but the tadpole wrapped up and concentrated, being evolved in consequence of fecundation, and assuming the lineaments of an animal. These phaenomena were new and unexpected, for I was firmly persuaded, that the globules of two colours, surrounded by mucus, were real eggs; all who have written concerning the generation of frogs, as Jacobus, Valisneri, and Roefel, having so denominated them. But as greater deference was due to what nature shewed so plainly, than to the authority of the most celebrated writers, it is fit to call these globules tadpoles or fetuses instead of eggs; for it is improper to name any body an egg, which, however closely it may resemble one, takes the shape of an animal without leaving any shell, as is the case with all animals that come from an egg. . . . I can also assure him, that every fact has been seen and examined a great number of times, for I have been taught by daily experience, that in natural history, truth can only be attained by the constant success of repeated experiments. . . . We cannot therefore on this, any more than on numberless other occasions, lay down any general rule, but must be attentive to the variation of Nature, in the endless multiplicity of her operations. . . .

"But let us proceed to the hatching, or rather the evolution of the newts, another part of their history not less curious and interesting than the preceding. Let us then attend to what happens to the eggs after they have been brought forth. These, when put into water, sink to the bottom; if the weather be warm, a quantity of air-bubbles soon appears upon the gluten

which includes them; these at first are very small, but become afterwards larger, and at last so large, that the eggs become lighter than water, and arise to the surface, bringing with them the collection of bubbles still adhering to the gluten: the bubbles then burst and disappear, and now the ova fall again to the bottom, and rise no more, being kept down by the gluten, which fastens them to the spot on which they rest. If we continue to watch them attentively, we perceive that their shape begins to change. When first brought forth, and for one or two days afterwards, they resemble an elongated spherule now begins to appear slightly curved, representing in miniature a kidney, or the testicle of a cock. The curvature increases, and the bulk in the same proportion, but with this additional circumstance, that one end of the ovum becomes thicker, and the other thinner. In the mean time, it acquires twice its original size. And now it appears not to grow in bulk, but only in length; and this becomes every day more apparent to the surprise of the observer. But his greatest surprise arises from seeing the egg thus elongated, agitate itself at intervals with great briskness, and then continue quiet: and as this happens without any external exciting cause, the idea of animality necessarily arises in the mind, and we incline to believe that the supposed egg is a real newt, only in disguise, just as I have discovered that the supposed eggs of frogs and toads are not eggs, but tadpoles in disguise. This idea continues to be more and more confirmed in the sequel, from observing by a glass the self-moving egg assume the features of a small newt, the tail appearing perfectly formed, the vertebrae beginning to shew themselves as well as the little gills within which the blood circulates, and likewise two lateral protuberances, which the observer suspects to be the rudiments of the arms, and the vestiges of the head and muzzle, and lastly the outlines of the eyes lying by the side of the head, under the appearance of two inconsiderable tumors. . . .

"There still remains an important inquiry relative to these animals, the same which has been already made concerning frogs and toads. At what period may those roundish bodies, commonly called the eggs of newts, be properly termed true fetuses?"

(To be continued)

CLINICAL NOTES AND CASE REPORTS

CONGENITAL ATRESIA OF THE ESOPHAGUS*

REPORT OF CASES

By RALPH S. GRAHAM, M. D.
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CONGENITAL malformation of the esophagus is a condition so rare that most of the standard works on anatomy, embryology, pathology, and pediatrics, as well as the systems of medicine and surgery, dismiss the subject with the mere mention that it has been known to occur.

Reynolds and Morrison¹ found but one case in the large necropsy service at Bellevue Hospital in sixteen years. Stukowsky and Boran² found but one in fifty thousand hospital cases. Although the first case was recorded as early as 1670 by Durston³ only 204 cases were found by Plass⁴ in 1917, and a review of the literature since that

* From the department of roentgenology, Sutter Hospital, Sacramento.

* Read before the Radiology Section of the California Medical Association at the sixtieth annual session, San Francisco, April 27-30, 1931.



Fig. 1.—Roentgenograms of Case 1, showing the lipiodol-filled cul-de-sac of the upper esophagus. Note the rounded lower border of the sac, the gas in the stomach and bowel, and anomaly of the lower dorsal vertebrae.

date brings the total to but 233 recorded cases. The two cases presented here were both delivered on the obstetrical service at Sutter Hospital within a period of three months by Dr. H. F. Schluter.

REPORT OF CASES

CASE 1.—A male baby, weighing six pounds eleven ounces, was born of healthy parents on July 16, 1930, at term. The mother was a primipara, twenty-seven years of age, and delivery was normal. The maternal grandfather had two rows of upper front teeth, but there were no other anomalies in the family on either side. The baby had a large amount of mucus in the throat, but breathed spontaneously. Mucus collected repeatedly in the throat and all feedings were regurgitated at once and associated with increased cyanosis. Meconium was passed and urine voided normally.

Physical Examination.—Dr. E. S. Babcock's examination reported a "small, pale baby, normally active, head and fontanelle normal, eyes normal. Right nostril does not admit a No. 12 F. catheter. Mouth, throat, and neck normal. Heart normal. Lungs do not expand well. Abdomen normal, spleen and liver not palpable. Double thumb on right hand, extremities, and spine otherwise normal. The stomach tube meets obstruction, probably in the region of the cardia. No fluid can be injected, and there is considerable mucus. There is probably atresia or obstruction in the cardiac end of the esophagus."

X-Ray Examination.—This was made on July 18, 1930. Under fluoroscopic observation a small catheter was inserted through the left side of the nose, and at first entered the trachea and right bronchus. On second attempt the catheter entered the esophagus, descended to about the level of the third rib anteriorly and then turned and coiled up and could not be passed further. Lipiodol to the amount of five cubic centimeters was introduced and filled out a sac-like structure. The baby was held upright for several minutes without change in the appearance of the esophagus shadow. An additional five cubic centimeters of oil was then injected, part of which was regurgitated at once. Films (Fig. 1) show a pouch about 5x2x2 centimeters, its lower border smooth and rounded in contour. A diagnosis of congenital atresia of the esophagus was made. Films also show a gas bubble in the stomach and gas in the intestine. The eighth, ninth, tenth, and eleventh dorsal vertebrae are incompletely fused, and from their distorted positions the ossification centers appear to be going to unite obliquely rather than straight across.

Esophagoscopy.—Examination on July 18, 1930, by Dr. George A. Briggs. Some lipiodol was still in the esophagus eight hours after the x-ray examination. The esophagoscope was passed into a smooth pouch in which no opening could be found. The rounded lower end of the pouch was located about halfway

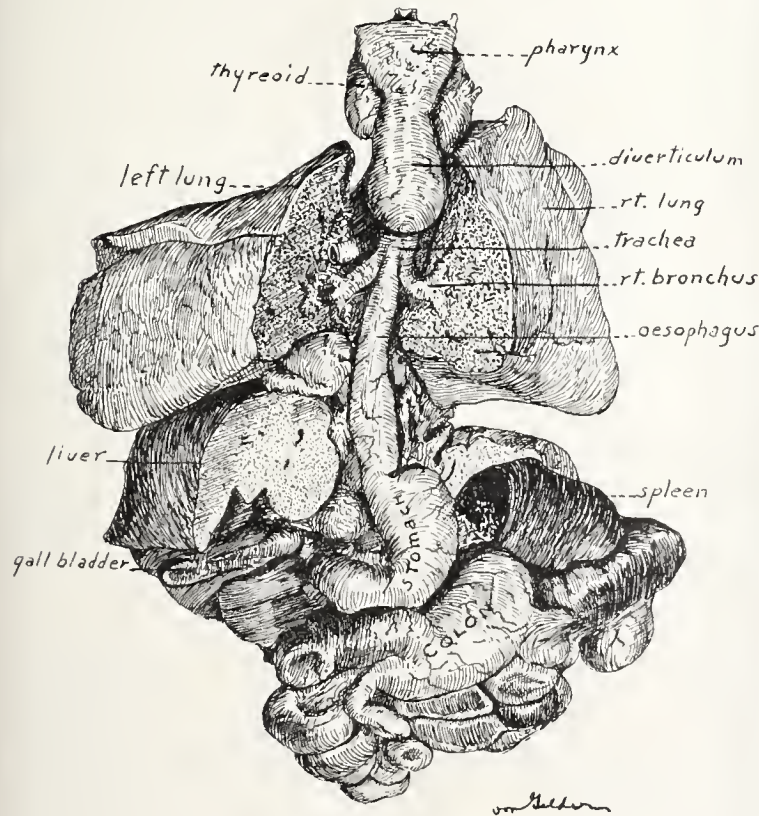


Fig. 2.—Drawing of dorsal aspect of necropsy specimen. The spleen, kidneys and bowel have been pulled to the right and part of the left lobe of the liver and portions of lung tissue cut away to show the relation of esophagus and trachea.



Fig. 3.—Semilateral view, showing the rounded pouch of upper esophagus and the fistulous opening of the inferior segment into the dorsal aspect of the trachea at the level of the bifurcation.



Fig. 4.—Roentgenograms of the esophagus in Case 2. The cul-de-sac of the upper esophagus is outlined by lipiodol. The oil has been aspirated into the bronchial tree.

between the ensiform cartilage and the upper end of the manubrium. Surgical procedure was considered inadvisable. The baby died three days after birth.

Necropsy.—The neck, chest, and abdominal organs were removed en masse and the esophagus carefully dissected out. The heart and great vessels are normal. Thymus, thyroid, and lymph nodes of the mediastinum normal. Spleen, liver, kidneys, and pancreas normal. The lungs are not very uniformly inflated. The larynx shows no abnormality. Just below the laryngeal cartilages the esophagus widens and forms a cul-de-sac with a rounded, smooth inferior border at the level of the bifurcation of the trachea (Figs. 2 and 3). The sac is freed readily from the trachea and is not connected inferiorly with other structures. Its wall is thick and mucosa smooth but rugose. The trachea appears normal as far as the bifurcation, at which point a small tube about the size of one of the main bronchi, but with a tiny lumen, inserts in the posterior wall of the trachea. This tube rapidly enlarges in its downward course to the size of a normal esophagus and enters the stomach in the usual manner. The stomach is small, and both the small and large intestine are normal and empty, except for a moderate amount of gas. The brain, spine, and osseous system were not examined.

Anatomic Diagnosis.—Congenital atresia of esophagus. Polydactylism of right hand.

CASE 2.—A female baby, weighing seven pounds fourteen ounces, was born on October 6, 1930. Both parents were in good health. The mother was a multipara. Her two previous children were normal deliveries and are both living and well. Neither show anomalies of any kind. This baby was spontaneously delivered at term and was easily resuscitated, but had a marked amount of mucus in the throat. The infant vomited and regurgitated immediately after each attempt at feeding, bringing up a large amount of mucus. Meconium was passed and urine voided normally. Gavage resulted in regurgitation and the baby got very blue.

Physical examination by Dr. Ernest Sevier revealed no abnormality other than wheezy breath sounds, some difficulty in breathing, and a croupy cough. A stomach tube was obstructed about fourteen centimeters from the lips.

X-ray examination was made on October 8, 1930. Films of the chest showed no abnormality of the heart, great vessels, or mediastinum. The lungs appeared uniformly well expanded.

On October 10, 1930, under fluoroscopic observation an attempt was made to pass a catheter down the esophagus. Each time obstruction was met at the level of the second rib anteriorly. Lipiodol to the amount of ten cubic centimeters was then injected,

outlining the upper portion of the esophagus as a sac-like structure about one centimeter in diameter with smooth, rounded inferior border at the level of the second rib anteriorly. The lipiodol was regurgitated into the mouth and nasopharynx in small quantities, these being immediately aspirated into the trachea, giving a fairly complete outline of the bronchial tree. None of the oil passed into the stomach. Films (Fig. 4) show no evidence of fistula between the trachea and esophagus. The usual amount of gas is seen in the stomach and intestine. An observation film seven hours later showed no trace of lipiodol in either the respiratory or digestive tract. The appearance is that of congenital atresia of the esophagus.

On October 10, 1930, esophagoscopy was done by Dr. J. Roy Jones, who confirmed the x-ray findings of atresia of the esophagus.

Surgical procedure was considered inadvisable and symptomatic treatment was instituted. The child expired on the eleventh day after birth. Permission for a necropsy was refused by the parents.

COMMENT

Ballantyne⁵ classifies esophageal malformation into seven groups:

1. Complete absence of esophagus.
2. Termination of esophagus in a simple cul-de-sac.
3. Termination of esophagus in a cul-de-sac, the lower rudiment of the canal communicating with the trachea or bronchi.
4. Tracheoesophageal fistula. Esophagus otherwise normal.
5. Membranous obstruction of the esophagus.
6. Esophageal diverticula.
7. Duplication of esophagus.

Group 3 comprises about 75 per cent of all reported cases of esophageal malformation. Case 1 is of this type and, although unconfirmed by necropsy, Case 2 in all probability belongs to this group.

The simplest and most logical theory as to the mechanics of this anomaly is put forward by Zeit⁶ and enlarged upon by McClellan and Elterich.⁷ It is based on the hypothesis of a faulty position of the lateral ridges which separate the ventral portion of the foregut to become the respiratory anlage (Fig. 5). If these lateral ridges turn dorsally instead of ventrally, as normally, the formation of many of the anomalies is readily understood. Other anomalies of the circulation or digestive systems are frequently associated with malformation of the esophagus.

The clinical picture in these cases is strikingly uniform. The child appears healthy, is active,

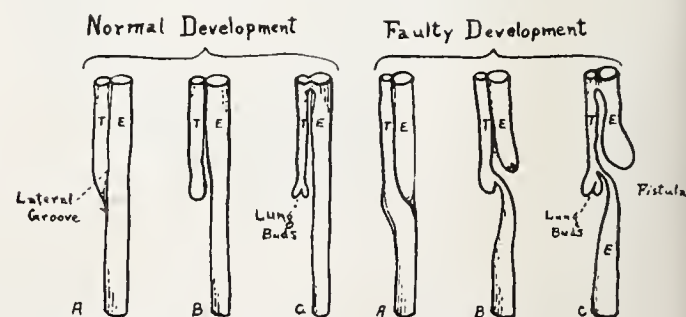


Fig. 5.—Schematic drawing to illustrate normal development and the faulty development in atresia of the esophagus. After McClellan and Elterich.

and passes meconium and voids urine normally. Mucus in the throat and nasopharynx is unusually profuse in amount. Liquid is taken hungrily, but is regurgitated within a few minutes, often with cyanosis and coughing. The vomitus contains much mucus and is foamy in appearance.

With the advent of roentgenologic observation it was possible to confirm the diagnosis by obstruction to the passage of the esophageal catheter and later by outlining the sac with bismuth or barium. In our patients lipiodol gave an accurate estimate of the size and character of the malformation. The use of iodized oil in the examination has the advantages of accuracy in filling of possible tiny fistulous tracts, of ease of administration and relative safety for the respiratory tract, since we may expect aspiration into the bronchial tree. Should the esophagus prove patent the oil is harmless in the stomach.

No cases of surgical cure of atresia of the esophagus are on record. Remedial measures must be aimed at correcting the communication with the bronchial tree as well as providing nourishment or the infant will die of pulmonary infection.

Although the diagnosis of congenital atresia of the esophagus is not difficult, it is one with a hopeless prognosis. Clear-cut visualization of the defect gives assurance to the physician in explaining the situation to the distressed family of the infant.

Sutter Hospital.

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I wish to express appreciation to Dr. C. E. von Geldern for his interest and care in making the drawing of the necropsy specimen of Case 1.—R. S. G.

THE DIAGNOSIS OF MALIGNANCY BY THE STUDY OF THE CENTRIFUGED SEDIMENT OF ASCITIC AND PLEURAL FLUIDS*

By RAYMUND J. MILLZNER, M. D.
San Francisco

THE technique of centrifuging ascitic and pleural fluids with the expectation of finding and recognizing tumor cells in the sediment is not new. The value of these examinations lies in the fact that they afford an additional source of information in cases that often are not well defined

clinically. Frequently a tentative clinical diagnosis of malignancy is confirmed, and occasionally a definite diagnosis of malignancy is made in cases that, clinically, appeared to be nonmalignant. The examination of a pleural fluid may give one of the first clues to the presence of an intrathoracic malignancy. Ascitic fluids from patients with obscure abdominal conditions may contain numerous malignant cells and thus obviate an exploratory operation. These examinations lack, however, the clinical popularity they should have. This is due in part to the use of indifferent methods in the preparation of the sediment and in part to difficulty in the interpretation of the microscopic pictures obtained.

METHODS IN USE

Two methods of examining the centrifuged sediment are in common use. The simpler, and the less satisfactory, is to smear part of the sediment on a slide and treat it as an ordinary blood smear. The staining qualities of the cells so treated are usually quite indifferent and the average slide gives a blurred picture worth relatively little for diagnostic purposes. With good technique and fresh fluids, well-stained slides are obtainable, but even with these the interpretation of the less common cell types is frequently difficult and uncertain.

The second method, that of embedding and sectioning the sediment, is more time-consuming, but when properly done gives excellent results. The technique employed during the preparation of the centrifuged sediment is of extreme importance, as the success or failure of the method depends almost entirely upon the physical properties of the sediment. A nonfriable, firm sediment which can be handled as roughly as an ordinary block of tissue is necessary for satisfactory study. Such a sediment rarely can be obtained from fluids centrifuged immediately after tapping. If pleural or ascitic fluid is allowed to stand for several hours in an ice box or at room temperature, partial sedimentation, associated with the formation of a scanty, diffuse, flocculent, fibrin network, occurs. This fibrin network may then be thrown down by centrifuging at high speed and firmly enmeshes the cellular elements of the fluid, holding them together during subsequent handling. Unfortunately, degenerative changes take place in the cellular elements of the fluid if it is allowed to stand too long. The interval between tapping and centrifuging must, therefore, represent a compromise between these two conflicting factors. We have found that most specimens of fluids develop sufficient fibrin network for a firm sediment after three to four hours. If kept in an ice box, the cellular changes during this period, as shown by comparison with fluids centrifuged immediately after tapping, are of no practical significance. Bloody fluids must be allowed to stand longer than nonbloody fluids, as the presence of much blood interferes with the obtaining of a firm nonfriable sediment.

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* Read before the Pathology and Bacteriology Section of the California Medical Association at the sixtieth annual session, San Francisco, April 27-30, 1931.

TABLE 1.—*Comparison of the Sediment Findings With the Final Clinical Diagnosis*

Type of Fluid	Totals	Positive		Per Cent of Correlation	Positive Clinical Diagnosis made by	
		Microscopically	Clinically		Operation	Autopsy
Ascitic	25	13	16	81.2%	8	8
Pleural	17	5	8	62.5%	0	8
Total	42	18	24	75.0%	8	16

The centrifuging must be done at the highest practical speed, over 3600 r. p. m. if possible. About five minutes at this speed is sufficient. Other conditions being equal, the higher the speed of centrifuging the firmer the resultant sediment. The clear supernatant fluid is then poured off

fixative may be used. After fixation the sediment is loosened by sliding a fine wire between it and the wall of the tube. The "button" of sediment then may be handled like an ordinary block of tissue during the subsequent processes of embedding and sectioning.

TABLE 2.—*Comparison of the Sediment Findings With the Type of Malignancy Present*

Type of Tumor	Fluid	No. of Cases	Tumor Cells Found in
Uterine adenocarcinoma.....	Ascitic	2	2
Papillary ovarian carcinoma.....	Ascitic	3	3
Carcinoma of the colon.....	Ascitic	3	1
Carcinoma of the stomach.....	Ascitic	1	1
Carcinoma of the breast.....	Ascitic Pleural	1 2	0 1
Primary carcinoma of the lung.....	Ascitic Pleural	1 3	1 2
Carcinomatosis (primary not determined).....	Ascitic Pleural	5 3	5 2
Totals.....		24	18

without disturbing the sediment, the tube refilled with fresh fluid, and recentrifuged. This is repeated until a sufficiently large "button" of sediment is obtained.

The sediment should be left undisturbed in the centrifuge tube during fixation. Ten per cent formalin is very satisfactory although any other

Most fluids show little tendency toward macroscopic layering of the sediment. When blood is present, however, the red cells settle to the bottom while the mesothelial cells, lymphocytes, and polymorphonuclears form a top layer. Tumor cells, if present, may lie in any or all of these layers. The "button" of sediment is, therefore, split in

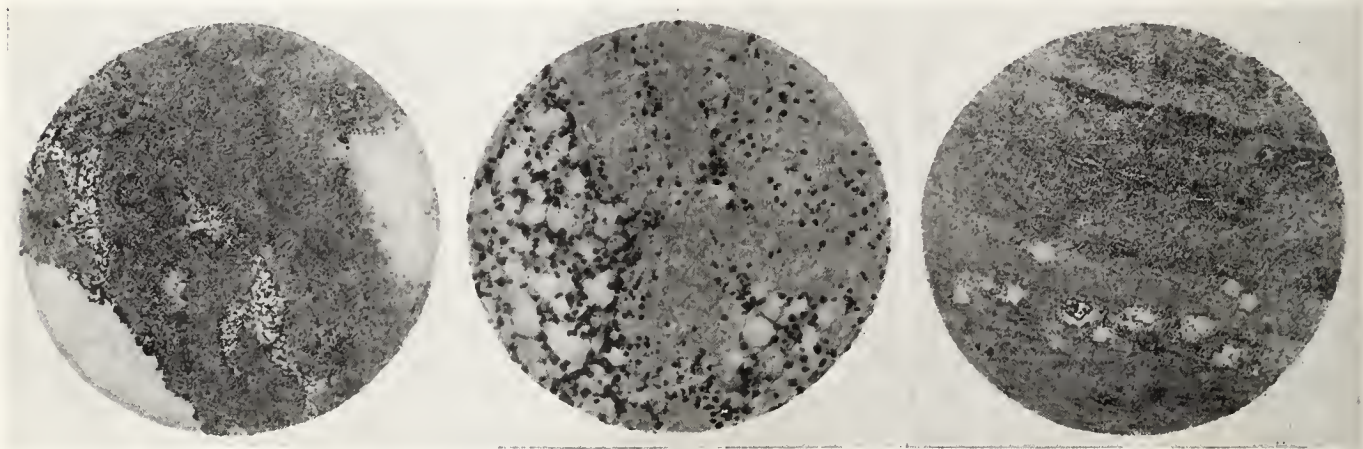


Fig. 1.—Pleural fluid. Cardiac decompensation. Masses of vacuolated mesothelial cells in diffuse sheets and clumps lie in a stroma composed of fibrin and coagulated protein. Lymphocytes, red blood cells, and occasional polymorphonuclears are present.

Fig. 2.—Pleural fluid. High power of Fig. 1. The sheet-like arrangement and uniformity of the mesothelial cells are quite characteristic.

Fig. 3. Ascitic fluid. Carcinoma of the transverse colon. The clump of deep-staining, tumor cells stands out in sharp contrast to the lighter staining, more uniform mesothelial cells adjacent to it. The nuclei of the tumor cells are larger, and the cells vary in size and shape. Vacuolization is also present.

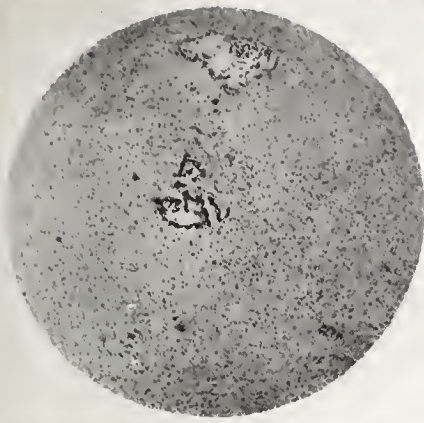


Fig. 4.—Ascitic fluid. Carcinomatosis. The tumor cells are definitely clumped, larger, and deeper staining than the other cells in the sediment.

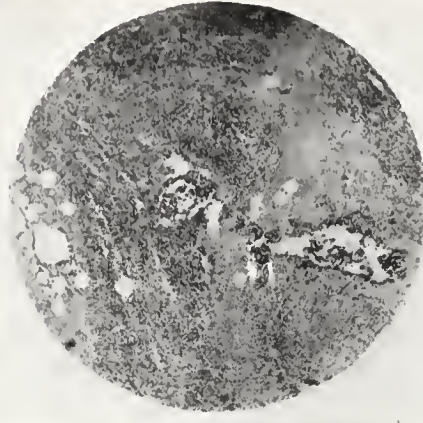


Fig. 5.—Ascitic fluid. Carcinoma of the ovary.

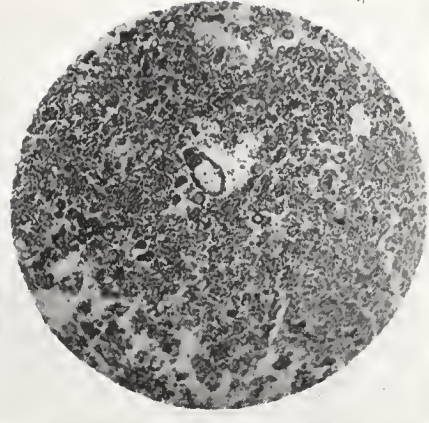


Fig. 6.—Carcinoma of the ovary. Nearly every cell in the field is of neoplastic origin. Although the isolated cells show polymorphism, mitotic figures, and occasional multinucleation, they would justify only a tentative diagnosis of malignancy. There are also clumps of similar cells with an alveolar arrangement. The definite diagnosis of malignancy depends upon these clumps.

two from above downward after embedding and the sections cut to include all these layers.

The cellular elements found in transudates and exudates of nonmalignant origin vary in number and type according to the etiology of the effusion. Lymphocytes predominate in tuberculous and polymorphonuclear leukocytes in nontuberculous infections. In mechanical effusions, mesothelial cells, either singly or in sheets or groups, are present in large numbers. These cells are mononuclear and vary little in size and shape. When grouped about fragments of fibrin or coagulated protein, they may simulate, at first sight, the appearance of a papillary type of malignancy. Pleural effusions caused by either tuberculosis or malignancy may contain numerous red blood cells.

Effusion associated with malignancy, involving the peritoneum or pleura, frequently contain tumor cells and occasionally even small fragments of neoplastic tissue in which may be recognized the relations of the tumor cells to their stroma. Fluids containing tissue fragments or groups of tumor cells offer little difficulty and ordinarily permit a positive diagnosis of malignancy. The cells of these clumps usually are larger than the

other non-neoplastic cells of the sediment and because of their deeper staining give the slide a mottled appearance even under the low powers of the microscope. Frequently these clumps show a papillary or alveolar arrangement of the cells. Other fluids may contain a preponderance of isolated cells without any pattern formation. These offer the greatest difficulty in diagnosis, and, if no definite clumps are found, usually permit only a tentative diagnosis of malignancy. The differentiation of neoplastic cells from mesothelial cells in such sediments is based on marked variation in size and shape, or the presence of large numbers of unusual-appearing cells, as well as on cytological factors such as multinucleation, giant nuclei, and the presence of mitotic figures. Vacuolization of the cytoplasm is more common in tumor cells, but is also seen in the mesothelial cells of long standing effusions.

The results of the examination of the pleural or ascitic fluids from forty-two cases are given in Table 1. As very few specimens of fluid were

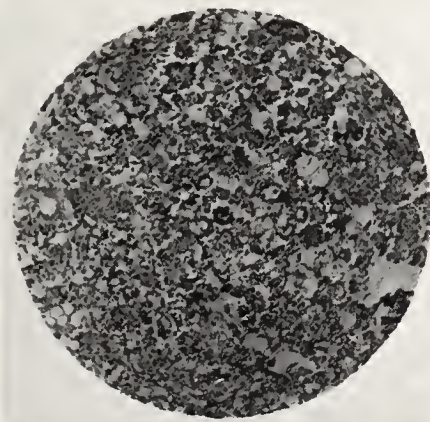


Fig. 7.—Ascitic fluid. Adenocarcinoma of the uterus. Most of the tumor cells are grouped in clumps and rosettes. A giant multinucleated tumor cell lies near the center of the field.

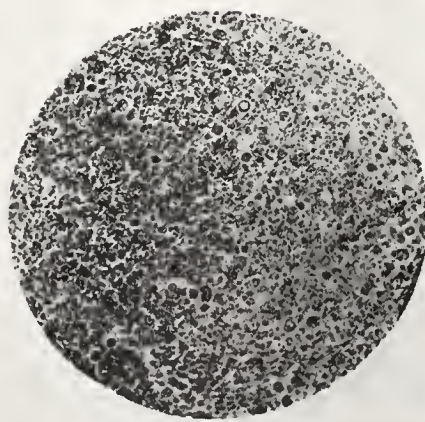


Fig. 8.—Pleural fluid. Primary carcinoma of the lung. Masses of tumor cells are arranged in clumps, rosettes, and pseudo-alveoli. Many of the cells have a vacuolated cytoplasm. Mitotic figures are numerous.

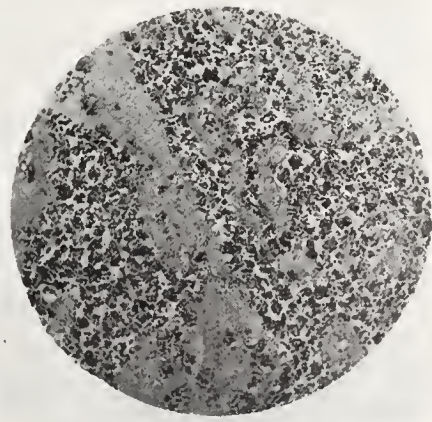


Fig. 9.—Pleural fluid. Primary carcinoma of the lung.

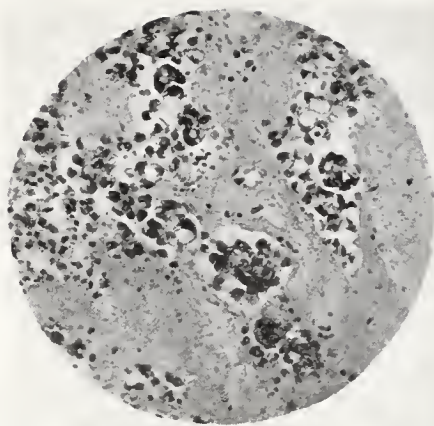


Fig. 10. — Pleural fluid. Primary carcinoma of the lung. A high power of Fig. 9. The polymorphism, deep staining, and vacuolization of the tumor cells are well shown.

sent to the laboratory from patients with proven cirrhosis of the liver or cardiac decompensation, the series shows a definite preponderance of cases clinically suspected of malignancy.

Twenty-four cases were proved malignant either by operation (exploratory or biopsy) or by autopsy. In eighteen of these, tumor cells were recognized in the sectionized sediment of the centrifuged ascitic or pleural fluids. Table 2 lists the type of malignancy in these cases.

The percentage of positive findings is high when the effusions are the result of malignant involvement of the pleura or peritoneum. In our series over 80 per cent of the specimens of ascitic fluid and over 60 per cent of the specimens of pleural fluid from such cases showed positive findings. These positive findings are quite accurate, and considerable reliance may be placed upon them in establishing the diagnosis and prognosis. On the other hand, a negative report does not rule out malignancy and is of no more significance than a negative report on any other laboratory procedure.

CONCLUSIONS

1. The examination of the sectioned centrifuged sediment of ascitic and pleural fluids is a valuable aid in the diagnosis of intra-abdominal or intrathoracic malignancy.

2. A positive diagnosis should be made only on the basis of definite fragments or groups of recognizable tumor cells. Isolated cells, regardless of appearance or the presence or absence of mitotic figures, justify no more than a diagnosis of probable malignancy.

The accuracy of these examinations is high and permits a positive or probable diagnosis of malignancy in about 70 per cent of the effusions caused by malignant involvement of the pleura or the peritoneum.

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PERIARTERITIS NODOSA WITH REMISSION OF SYMPTOMS*

REPORT OF CASE

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PERIARTERITIS nodosa is the pathologically descriptive name given by Kussmaul and Maier¹ in 1866 to a disease of the small arteries. A number of excellent summaries by Lamb,² Ophüls,³ and Singer⁴ have appeared in the medical literature. Singer⁴ brought the total of reported cases to 130. Since then thirteen new cases have been added. Less than twenty of the total cases have been reported in our American medical literature, partly, no doubt, because of the lack of routine histologic autopsy studies. In this country about 12 per cent of the cases have been diagnosed before autopsy through biopsy studies of skin lesions or tissue removed at operation.

The following case report is presented not only in the hope of stimulating interest in the etiology and diagnosis of periarteritis nodosa, but because of its favorable response to arsenical treatment.

REPORT OF CASE

M. N., age forty-one. Barber. On September 17, 1930, he came because of "lumps all over body." Family history negative. Personal history negative. Three weeks before, he developed "lumps over the body." He had to give up his work, also his drum corps work because of pain when handling the sticks. For the past several weeks he has had severe pains in the hands, arms, and legs. Of late these pains have been sufficiently severe so that it was impossible for him to shake hands, difficult to walk, and almost impossible to sleep. Two or three new skin lesions appeared every day.

Examination.—Eyes negative. Blood pressure, 130/82. Pulse 76. Nose: Septum deviated to the left. Tonsils septic. Heart, lungs, and abdomen negative. Skin: Over the extensor surface of the forearms and on the legs there were small, hard, movable nodules about the size of shot. He also had three subcutaneous lesions on the face. Wassermann negative. Urine showed pus cells, a few coarse granular and small granular casts, with an occasional hyaline cast.

A biopsy specimen was sent to Dr. A. S. Warthin at the University of Michigan for histologic examination and he has kindly sent the accompanying microphotographs. I am also indebted to Doctor Warthin for the following pathologic description: "The blood vessels (arteries) present the appearances of an advanced second or inflammatory stage of periarteritis nodosa in the form of a marked polymorphonuclear infiltration of media and adventitia, and extending through the perivascular lymphatics. There are areas of localized necrosis of the vessel walls, with destruction of the intima and inner media, in some places extending entirely through the vessel walls. Associated with the cellular infiltration there is a fibrinous exudate in the form of fibrin threads. In some areas there is a reactive proliferation of the intima, and an organizing thrombus in the lumen. Some vessels are completely obturated by the thrombus. Some of the smaller arterioles show a later stage

* Read before the joint meeting of Pathology and Bacteriology and General Medicine Sections of the California Medical Association at the sixtieth annual session, San Francisco, April 27-30, 1931.



Fig. 1.—Low-power magnification of biopsy specimen of skin nodule, showing polymorphonuclear infiltration of the media and adventitia, and extending through the perivascular lymphatics.

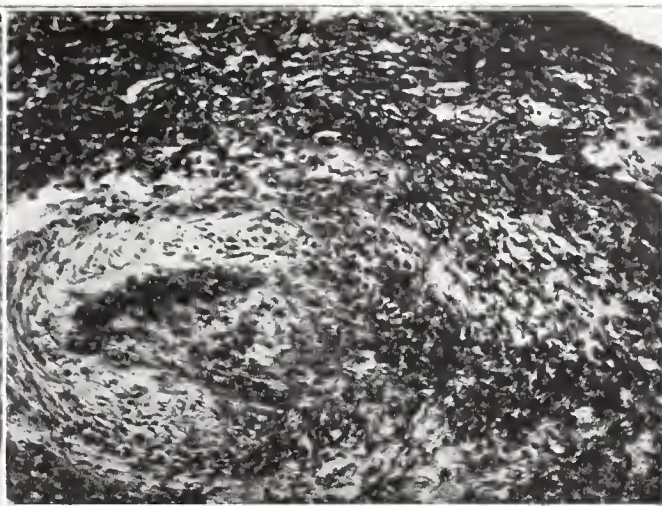


Fig. 2.—High-power magnification of the vessel in Fig. 1, showing the destruction of the intima and inner media with cellular infiltration, also reactive proliferation of the intima and an organized thrombus in the lumen.

of fibroblastic proliferation. The localized lesion in the vessel wall produces a characteristic elliptical distortion of the vessel. There is no suppuration, and no pyogenic organisms are present. At the site of the necrotic areas in the media there is an aneurysmal bulging of the outer part of the vessel wall remaining."

December 15.—Blood: Hemoglobin, 70 (Dare); red cells, 4,020,000; white cells, 15,600; polynuclears, 47; transitionals, 3; lymphocytes, 18; eosinophils, 32. Arneth. index, 56.5 to 43.5.

In the meantime the patient had been given neosalvarsan, .45 to .9, once a week. He gradually improved and had, during the last week, only one new lesion, this being on the little finger of the right hand, which lasted only one day. On December 18, 1930, he resumed work, feeling free from pain and, as he stated, absolutely well. Two months later he returned, stating that in the past three weeks four new lesions had appeared—one on the finger and leg, and two on the face. At this time: Hemoglobin, 65 (Dare); white blood count, 32,000; polynuclears, 42; lymphocytes, 21; eosinophils, 37. Arneth. index, 58.5 to 41.5. The urine: Specific gravity, 1015. Negative, except for the microscopic examination, which showed a few leukocytes, a few red blood cells, and a few small granular casts. He was given neosalvarsan .9 intravenously, four doses, five days apart. No new lesions after February 16.

March 23.—No recurrence. Urine: Specific gravity, 1022; microscopic examination showed an occasional leukocyte; casts rare.

April 22.—Hemoglobin, 70 (Dare); white cells, 9200; red cells, 4,480,000; polynuclears, 72; lymphocytes, 25; eosinophils, 3. Arneth. index, 47 to 53. The urine: specific gravity, 1023. Negative except for the microscopic examination, which showed a few pus cells and occasional small granular casts.

COMMENT

Fortunately in the case presented we were dealing with one of the 20 per cent of patients who have skin nodules, through biopsy study of which this disease can be diagnosed definitely. Kussmaul and Maier¹ also called attention to the value of muscle biopsy in suspected cases because there is a loss of cross striations of striated muscle. The clinical symptoms and signs vary greatly. The onset may be gradual or acute, the temperature may be normal or moderately elevated, pulse normal or increased, blood pressure low, normal

or high, extreme weakness, headache, anorexia, sweating, chilliness, sore throat, diarrhea, constipation, vomiting, colicky abdominal pains, at times blood in loose stools, sleeplessness because of pain, hard subcutaneous nodules in 20 per cent purpura, peripheral neuritis, myositis, cramp-like pains on deep pressure over the muscles, pains in the joints, asthma, hemoptysis, disturbances of sensation, urticaria, nephritis, and an unusual leukocytosis with eosinophilia.

Circulatory symptoms apparently are absent and respiratory symptoms are rare, but Kountz⁷ and others have reported cases with jaundice. One gets the general impression of an acute infection, frequently characterized by irregular exacerbations and remissions; the complications resulting from the multiplicity of lesions easily overshadow the actual disease, and thus account for the almost universal mistakes in diagnosis.

The blood picture is that of a secondary anemia with a leukocytosis which varies from 9000 to 66,000 in some cases, with an increase of polymorphonuclears and an Arneth shift to the left, an eosinophilia in some cases reaching over 50 per cent, a most striking picture.

The urine findings are those of a mild or moderately severe glomerular nephritis, which is present in all cases reported.

The most careful bacteriologic work has been done by Lamb, who found a streptococcus but thought it a contamination because he could not reproduce the disease by inoculation in animals. The pathologic findings have been minutely described by Kussmaul and Maier,¹ Lamb,² Ophüls,³ Keegan,⁸ Singer,⁴ Bennett and Levine,⁹ and others.

Briefly stated, the disease affects the small arteries, causing nodules and aneurysms, with the resultant changes in the organs due to the lack of blood supply. The gross appearance is a solid nodule usually at the branching of a small artery, varying in size from a mustard seed to a pea. Microscopically we find the main changes in the adventitia, where there is a periarterial infiltra-

tion, affecting the adventitia, gradually involving all coats of the artery, leading to granulation and finally fibrosis. These changes may be found in any organ and have been found in the kidneys in all cases.

The disease has been variously classified, depending on the predominance of clinical symptoms and pathologic findings such as: cerebral, cardiac, pulmonary, renal, abdominal, neuromuscular, and dermatologic. Manges and Baehr¹⁰ do not think the disease is rare. The majority of patients are between ten and forty, though a case has been reported in a nine months' baby and a man of seventy. Males predominate, five to one. Harris and Friedrichs¹¹ produced the disease in animals, though their experiments have not convinced many other investigators.

The disease has ultimately proven fatal in all but two or three of the cases reported; but some authors believe many mild cases which have not been recorded have recovered spontaneously.

The etiology is obscure. The theory that syphilis is a cause has been abandoned. Some authors believe it to be the result of a toxic agent, possibly a streptococcic process of a subacute type or an allergic reaction from a recent streptococcus infection. Others, of whom I am one, believe it to be a specific infection because clinically and pathologically the disease resembles typhus and Rocky Mountain spotted fever, and because an identical disease has been reported in epidemic form in stags. It has also been found in hogs and cattle.

Salicylates, atophan, injections of milk, Kol-largol, Fowler's solution, etc., were used by Blum⁵ and others, but since their patients died, it was deemed preferable to follow the suggestion of Carling and Hicks,⁶ who reported remission of symptoms following the use of arsenicals intravenously.

The case here reported is of interest because the patient has so far responded very favorably to arsenicals and is now in remission.

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RECONSTRUCTION OF THE RADIAL ANNULAR LIGAMENT

By HAROLD E. CROWE, M. D.
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"THE interesting feature of the skeletal anatomy of the elbow and forearm is the marked degree of supination and pronation between the radius and the ulna. This is essentially due to the small round head of the radius articulating with the proximal end of the ulna. These two bones are held so firmly together by tendinous and ligamentous structure that dislocations between them are practically unknown. In fact, the head of the radius will be fractured before it will dislocate" (K. G. Hanson and I. D. Horwich¹).

"Dislocations of the head of the radius form, according to Stimson, from 1.4 per cent to 4 per cent of the total number of dislocations seen at large clinics, and are, consequently, far from being uncommon" (Henry Milch²).

The discrepancy in these statements is interesting, the first being the incentive for this note and the second placing a slight damper on the author's enthusiasm. The operation described being original, it was found that a similar, more complicated operation had been published by Milch in 1928,² and an identical operation published by Campbell in 1929.³ The point of general interest, then, remains only in the unusual opportunity to compare an untreated and an operated case.

In the same week two patients appeared in our clinic. The first had an anterior dislocation of the radial head, unreduced in spite of five years of "faith healing," and showed 40 degrees of valgus deformity with loss of the last 5 degrees of flexion and the last 60 degrees of extension (Figs. 1, 2, and 3). Pronation and supination were normal. The deformity apparently resulted from five years' growth in the presence of an untreated dislocation. The second patient had an unrecognized dislocation of five weeks' duration, which was complicated by a large ossified hematoma in the anterior elbow-joint capsule. An open reduction and reconstruction of the annular ligament was done (Figs. 4, 5, and 6).

Operation.—Posterior lateral incision longitudinally for three inches over the normal site of the head of the radius. Dissection forward to excise the ossified hematoma. Transverse incision of the supinator muscle to expose and retract the deep branch of the radial nerve as it passed around the neck of the radius in the belly of this muscle. The annular ligament was found to be practically unrecognizable, so completely had it been shredded in the original injury. A strip of fascia lata, folded on itself to bring the shiny side out, was passed deep to the nerve around the shaft of the radius close to the head and carried subcutaneously to a drill hole in the adjacent subcutaneous ridge of the ulna. Drawn tight and sutured with No. 3 Turner's silk, this new ligament held the head of the radius back and toward the ulna in its natural position, at the same time allowed free motion in all directions without displacement (Fig. 7).



Fig. 1.—Untreated. Cubitus valgus 40 degrees.



Fig. 4.—Operated.



Fig. 2.—Untreated. Loss of five degrees of flexion.

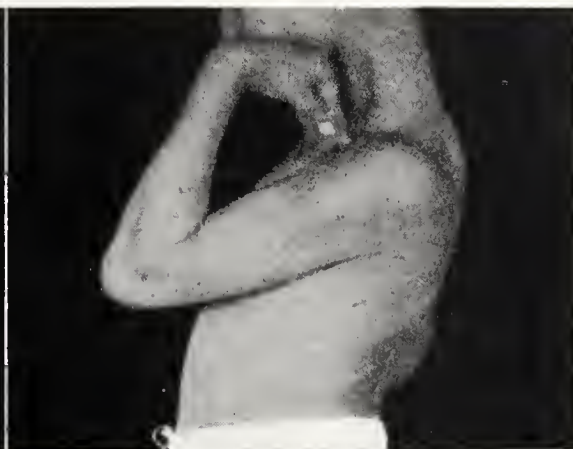


Fig. 5.—Operated. Full flexion.



Fig. 3.—Untreated. Loss of 60 degrees of extension.



Fig. 6.—Operated. Full extension.

Three days' splinting, followed by active passive motion for two weeks, lead to normal function in four months' time. Observed at the end of two years, function continues normally in the operated elbow.

Orthopedic Hospital.

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Every medical student should remember that his end is not to be made a chemist, or a physiologist, or an anatomist, but to learn how to recognize and treat disease, to become a practical physician.—*Sir William Osler.*

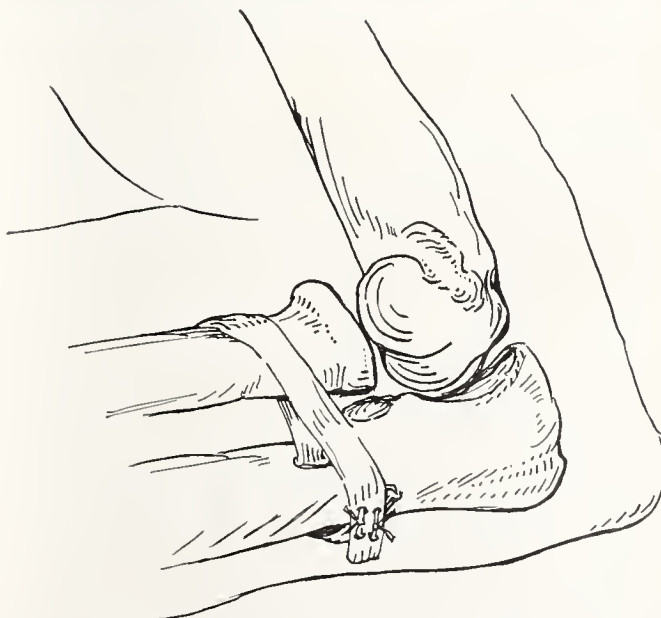


Fig. 7.—Diagram of operative procedure.

GASTRIC OBSTRUCTION—AS A RESULT PERISPLENIC HEMATOMA*

CONFUSION WITH DIAPHRAGMATIC HERNIA

By ROBERT A. POWERS, M. D.
Palo Alto

A PREVIOUSLY healthy male patient of age twenty-seven, was pinned beneath a car and sustained injuries to the abdomen, transverse processes, and left lower thorax. He was admitted to the hospital in a state of shock, recovering from the shock in about twelve hours. During a period of thirty days following the accident he sweated profusely, could eat very little, vomited frequently, and on three occasions passed into a state of shock. Shortly following the accident a left pleural effusion developed, necessitating aspiration. Leukocytes fluctuated between twelve and twenty thousand. The abdomen was rigid. The patient lost weight, and a state bordering on starvation ensued. Clinical examination suggested an abdominal injury with possible hernia of the diaphragm. The patient's condition was such that immediate operation was advised.

Roentgen-ray examination at this time showed a left pleural effusion, considerable elevation of the left diaphragm, and several fractured right lumbar transverse processes. Upon taking barium the stomach showed an upper loculus which appeared to be at the level of, or slightly above, the elevated left diaphragm. The median portion of the diaphragm shadow was obscured by opacity within the thorax. The barium passed very slowly into the fundus. Twenty-four hours following the opaque meal the upper gastric pouch still retained considerable barium and appeared at the level of or above the diaphragm. The abdomen was opened and was found filled with serum. A large hematoma filled the left upper quadrant, surrounding the spleen and displacing the cardiac portion of the stomach high up against the diaphragm. No attempt was made to remove the spleen, which was entirely covered with fibrinous exudate.

There appeared to be no doubt that the spleen was ruptured and that the three separate and distinct episodes were incident to delayed hemorrhage.

The patient had a stormy three months' convalescence during which abdominal paracentesis was necessary on several occasions. Upon examination three months following the operation and four months following the injury, the patient still complained of weakness, gas in stomach and intestines, dyspnea on exertion, loss of weight, and pain in left lower chest.

On physical examination he weighed 112 pounds as against 136 pounds before the accident. He looked weak and ill. The cervical lymph nodes were enlarged. The pulse was regular. Blood pressure, 100/60. There was dullness over the left lower thorax. The upper abdomen was distended and board-like. No shifting dullness in flanks was present. The hands were cyanotic.

* Read before the Radiology Section of the California Medical Association at the sixtieth annual session, San Francisco, April 27-30, 1931.

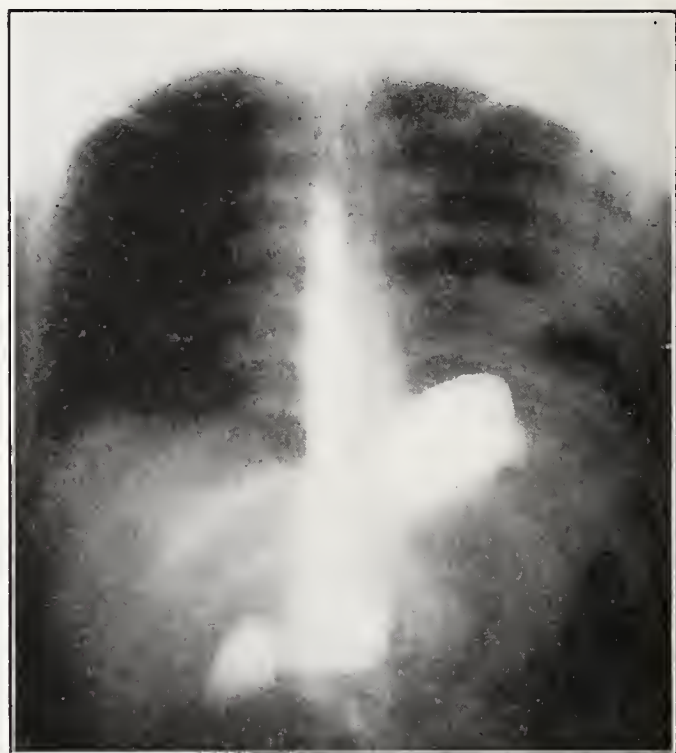


Fig. 1.—Demonstrating upward displacement and deformity of the stomach due to perisplenic hematoma.

Fluoroscopy at this time showed a homogeneous density over the left lower lung field. The diaphragm appeared elevated. The heart was displaced to the right. Barium was delayed at the cardia and passed slowly into a pouch which was higher than normal. The body of the stomach was constricted. The lower gastric contour was irregular. There was no six-hour residue. There appeared to be some irregularity of the splenic colon. The blood count was normal. At present, ten months following, the patient is still partially disabled.

COMMENT

The case reported is of interest for two reasons:

1. Gastric obstruction as a result of a perisplenic hematoma is quite rare. No mention of this condition is made in current works on injuries to the spleen.

2. The case demonstrates that opacity in the left lower thorax may cause some confusion in the diagnosis of diaphragmatic hernia. This would appear to be particularly true where there is marked upward displacement of the stomach and a 24-hour gastric retention.

218 Medico-Dental Building.

The 300,000th Leitz Microscope.—The optical works of E. Leitz, in Wetzlar, Germany, have completed their 300,000th microscope. This instrument was presented at an appropriate gathering to Geheimrat Professor Dr. Ludwig Aschoff of Freiburg, in Breisgau, Germany, a scientist and physician of world renown in the pathological and anatomical field of scientific endeavor.

The dedication of this microscope follows a custom of the firm of E. Leitz to present every 50,000th microscope to an outstanding scientist or institute, thus expressing their appreciation of the coöperation extended by leading authorities to the Leitz works.

The 100,000th microscope was presented to Dr. Robert Koch of Berlin, and the 150,000th to Dr. Paul Ehrlich of Frankfurt.—*Journal of the South Carolina Medical Association*, December, 1931.

BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussion invited.

MENTAL DISEASES IN THE ELDERLY

EDWARD W. TWITCHELL, M. D. (909 Hyde Street, San Francisco).—Since it is desirable in most cases of insanity in the elderly to keep the patient at home as long as possible, and as many of these patients may be kept at home throughout the rest of their lives, it is well that the general practitioner, who first comes in contact with them and who oftentimes cares for them to the end, should be able to recognize these mental states early and should know the best means of control of them.

Six or seven different varieties may generally be recognized, although no two authorities will agree when it comes to classification, but the following grouping is sufficient for all practical purposes.

1. Simple depressive states.
2. Chronic delusional states.
3. Acute and subacute delirious states.
4. Cerebral arteriosclerosis with psychosis.
5. Senile dementia of atrophic type.
6. Presbyophrenia.
7. Alzheimer's disease.

The last two are considered by some to be practically identical.

1. The simple depressive states are those which frequently in women are called involuntional melancholia. This is a disease which Kraepelin, although he originally admitted it, eventually rejected, feeling that in practically all instances it was simply a late manifestation of manic-depressive insanity. Others, however, feel that there are numerous instances of this late appearing depression in which the patients have never shown any cyclothymic trends during earlier life and therefore it should be regarded as being a distinct disease. This depression may be of the mildest or become of extreme severity. It may be of a few weeks' or months' duration and it may exist the rest of the life of the patient. Many of them will spend periods in sanatoria or state hospitals, and then come back home for a greater or lesser length of time. The danger of suicide is ever present. The treatment is essentially one of hygiene and nursing.

2. The chronic delusional states are oftentimes more difficult to manage. These patients, who are by some regarded as simply late appearing paranooids, become suspicious, fancy they are being spied upon, or poisoned or gassed, or conspired against. They protect themselves in all sorts of ways, such as changing locks on doors, pasting paper over keyholes, putting heavy blinds on windows, carefully scrutinizing all the food they eat, and withdrawing themselves from the society of those whom they suspect. Sometimes a delusion

will be one of jealousy and the object of the jealousy will be made miserable by the patient. In this way they become what the French designate *persecuteurs persecutés*. This condition often makes it impossible for the patient to adjust himself to life outside of an institution. It is conceivable that such patients may be extremely dangerous when protecting themselves against the supposed machinations of their persecutors.

3. The acute and subacute delirious states are apt to have a rapid onset. Women seem to be more often afflicted than men and the time of appearance is frequently in the sixth decade, although it may appear ten years earlier. After a period of uneasiness, delusional ideas appear, followed soon by hallucinations of sight and hearing. Patients soon get into a state of excitement. This excitement makes them difficult of restraint and they have to be transferred to sanatoria or state hospitals. They will bite, scratch, strike those about them in their effort to free themselves from control. They will sometimes tear their own hair or beat themselves in their desperation. The picture gets wilder and wilder and a fever develops, sometimes rising to 106 degrees or 107 degrees. With this fever and rapid pulse and excitement, there is more or less complete lack of sleep. The patient rapidly gets into a condition of exhaustion and in a few weeks is brought to a state of collapse, and death soon follows. Sometimes an infection may be demonstrated intravital. At other times while one takes it for granted, it is not demonstrable. Pathologic findings are variable; sometimes there is simply a considerable degree of hyperemia of the meninges and the brain, in other cases extensive destruction of nerve tissue has been demonstrated. This type of case was formerly often known as acute delirium. It is not only found in the presenium but also occasionally in those of more advanced age, say, in the late sixties. The mortality rate of these cases is high. While some patients go on to a condition of permanent mental deterioration and some few recover, the most of them die. There are a number of varieties and subvarieties which in a general way answer the above description, but the important point is that they come on relatively rapidly, run an extremely stormy course, with the wildest sort of delusions and hallucinations and generally end fatally.

4. Cerebral arteriosclerosis commonly accompanies advancing years, but it does not invariably do so. While many of the mental conditions found in the elderly are due to arteriosclerosis, by

no means are all of them. Cerebral arteriosclerosis is usually described as being of two types: A. Small vessel type; B. Large vessel type. In the small vessel type, the patient begins by showing the usual signs of senile mental deterioration, that is to say, failure in memory, increasing fatigability for mental work, impaired judgment, attacks of drowsiness, headaches, dizziness, character changes of greater or less importance, transitory monoplegias, or hemiplegias, disturbances of speech, epileptiform attacks, etc. The condition creeps on gradually but is apt to be marked by sudden aggravations, the patient recovering always at a lower level than he was prior to his attack. All symptoms increase in severity and it is characteristic that certain faculties may suffer considerably, while others will be relatively unimpaired. In other words, the involvement is a patchy one. This clinically makes the condition distinguishable from general paresis where the psyche is involved as a whole. In these cases, as the patient gradually gets feebler and feebler, death may come without any striking occurrences. The patient simply grows a little bit feebler, a little more deteriorated mentally, finally dropping off to sleep permanently. In the large vessel type of involvement, the disease will begin, say, by hemiplegia, leaving the patient more or less crippled thereafter physically and with greater or less amount of mental deterioration. If aphasia is associated, the plight of the patient is worse than if aphasia is absent. Death may come suddenly as the result of a second, third or fourth stroke. Cerebral arteriosclerosis cannot always be postulated from the condition of peripheral vessels. Excellent radials may exist in conjunction with very chalky cerebral vessels. The retinal vessels give a far better index as to the brain vessels than do any other accessible arteries. A great proportion of these patients can be kept at home during the entire course of the disease, the greatest difficulty being the management of those patients who are rendered helpless by paralysis. The mental condition may be sometimes a stormy one and many of these patients are as violent as any manic. Generally, however, the difficulty consists in their inability to take care of themselves, in their tendency to lose themselves in their own homes, to wander around at night, to get out of the house and get lost in the streets, and so on. Toward the end, much difficulty is encountered in the care of those who are incontinent of urine and feces and they become very trying patients from a nursing standpoint.

5. The simple atrophic type of senile dementia begins very much in the same way that the arteriosclerotic does, but it has none of the focal manifestations which always serve to differentiate the arteriosclerotic disease from another. Here the condition is apt to be simply an increasing quantitative lowering of the intelligence, until finally the patient ends, "sans teeth, sans eyes,

sans taste, sans everything." The pathologic findings differ from the arteriosclerotic ones in that the vascular changes which are so characteristic of arteriosclerosis are lacking. Instead there is merely an atrophic state, the vessels being in relatively good condition.

6. Presbyophrenia. This is a condition about which there is much discussion. The name was originally used by Kahlbaum. Wernicke developed the idea and many psychiatrists since have described the disease as a definite entity, but as Bleuler says, the description of one author is quite different from that of another and the same author, writing at different periods, describes two different things. Kraepelin says that most patients are over seventy years of age and yet authors will agree that cases are to be encountered as early as the forties. A striking thing about all presbyophrenics is the peculiar conservation of certain abilities, with a very marked loss of others. For example: a patient may be able to converse rather entertainingly, and to the superficial observer may not be noticeably abnormal, but may all the while be completely disoriented and have no real appreciation of his surroundings. The chatty old gentleman toward the end of the conversation asks you if you are, by any possibility, Benjamin Franklin, or will tell you that he is sixty years of age and that he has two sons who are seventy-five. Memory defects are common and it is due to this that many assume the disease to be identical with Korsakow's, although a toxic factor and neuritis will be entirely lacking. Certainly, while in some respects the disease picture may resemble Korsakow's, there is no excuse for confounding it with a real Korsakow, which must have a toxic polyneuritis as basis of the picture. One thing is apt to be noticeable about these patients and that is that they are generally free from depression. As a rule, depression is a part of the picture of most presenile and senile psychosis. The presbyophrenic, however, is noticeable for his contentment. The presbyophrenic, in many instances, may be kept at home if there is anybody to look out for him at all. He simply needs nursemaid care.

7. Alzheimer's disease. This is another disease, concerning which there has been much controversy. With reason, Bleuler calls this identical with presbyophrenia. Like presbyophrenia, it may start in the forties; however, it may not appear until the late sixties or seventies. It is, however, apt to proceed pretty rapidly to a very complete dementia and practically all authors insist upon the speech disturbances. In the well advanced case, the speech may consist of constantly repeated phrases, groups of words, or inarticulate sounds. Death may follow within a few years after the onset. The pathologic findings as described by Alzheimer are an enormous destruction of cortical cells with peculiar bundles of fibrinous material. These patients often get rapidly to such a point that home care is impossible.

One difficulty with the mental conditions of advanced years is the reluctance on the part of state institutions to receive such patients. The attitude of the state hospitals is that all ordinary cases of senile dementia should be kept in the counties in which they originated and in many instances where such patients have been committed, they have been returned to their homes after the condition was definitely determined by examination at the hospital to which they had been committed. Generally such patients can be treated in relief homes, where the families are not able to pay for care in some private institution, or employ adequate nursing at home. In many instances, however, it means that some devoted daughter or sister must sacrifice herself for a period of anywhere from six months to as many years.

* * *

AARON J. ROSANOFF, M. D. (1930 Wilshire Boulevard, Los Angeles).—When a mental disorder in an elderly person first comes to medical attention, an investigation should at once be instituted with a view to determining the exact diagnosis, pathology, and prognosis, as a basis for a plan of management and treatment. It has already been pointed out in Doctor Twitchell's opening paper that in many instances a mental disorder not peculiar to senility happens to occur in an elderly person. In such cases there are no special therapeutic indications. The cases are handled approximately in the same manner as those observed in younger persons.

In the cases presenting mental disorders which are more or less peculiar to advanced ages, such as senile dementia, cerebral arteriosclerosis, Alzheimer's disease, and involutional melancholia, the physician is confronted with some practical issues.

Perhaps the first question that has to be dealt with is that of the amount of custody and supervision which the patient requires. In cases manifested by excitement, violent and aggressive tendencies, or by suicidal impulses, or by noisy or destructive behavior, institutional care should as a rule be arranged. Whether it is to be care in a public institution or in a private sanatorium depends mainly on the financial resources of the patient or his relatives.

It is, of course, also possible even in such a case to avoid placement in an institution by making elaborate arrangements for care in a secluded place with day and night nurses, but such arrangements are very expensive and present no real advantage.

Patients who are free from violent or dangerous tendencies can be cared for in a private home indefinitely, although they, too, require, of course, a certain amount of supervision.

A second practical problem that presents itself sooner or later in the great majority of cases arises out of physical disabilities with which

mental disorders of elderly people are often associated. The patients become bedridden, have to be dressed, undressed, bathed, fed; they also often soil or wet their clothing or bedding, either from loss of sphincter control or from mental deterioration or both. In such cases there is much danger of the development of bedsores and of a complicating fatal bronchopneumonia. The latter may be produced either by inspiration of food in cases of partial paralysis of the mechanism of deglutition, or it may occur as a hypostatic affair, or from exposure to cold acting upon a weakened resistance.

This problem is to be met by organizing efficient nursing. To do so in a private home usually imposes months or even years of strain upon any person undertaking to care for such a case. In my opinion the advice to the family in such a case should again be in favor of public or private institutional care. Such advice is in the interest not only of relieving near relatives of an abnormal burden, but also of securing for the patient a better organized and more skillful nursing care.

A third practical problem is that of arranging for a winding up of the patient's affairs in anticipation of the physical disability and the mental deterioration which is to be expected in most cases of mental disorders peculiar to senility.

For example, as soon as a diagnosis of cerebral arteriosclerosis has been made, and while the patient is still legally competent, the relatives should be made fully aware of his condition and of the prognosis, retirement from business should be insisted on, as well as the making out of a will, etc.

These, of course, are delicate matters to broach to patients, and the physician can help a great deal by his participation in a tactful handling of them.

Recoverable cases of mental disorder occurring in elderly people are, of course, to be managed in a very different way; but, as has already been stated, these are not the cases peculiar to senility and present no special indications merely by reason of having occurred in an elderly person.

* * *

SYDNEY KINNEAR SMITH, M. D. (230 Grand Avenue, Oakland).—It would seem that our most constructive work as physicians in handling problems of senile change would lie more especially in the prophylactic field. Obviously the curative aspect is not hopeful, other than in a symptomatic procedure. When senility has set in, both physical and mental, the problem is essentially one of custodial care in one form or another. It is impossible, of course, to say at what point old age begins, and, as a matter of fact, is not particularly important. If we are to consider the handling of old age problems we must anticipate this period and make our plans accordingly. We

all see individuals in the period from fifty to sixty who are capable of performing all the functions of life with regularity, but who are incapable of meeting the stresses of life in the way that they did in years past. It is at this period that we should lay definite plans looking toward a physically and emotionally satisfactory old age. Naturally, there is a great individual difference in the mode of onset of symptoms of decline, depending on previous habits of life, as well as individual peculiarities and hereditary predisposition. Individuals, at a time when their judgment is yet sufficiently reliable, should be aided in planning the years to come. Moderation in all activities should be the keynote of procedure and the expenditure of unnecessary energy be avoided. With most individuals past middle life there is less physical, emotional and intellectual drive. Cares and anxieties which formerly were easily overcome now become unbearable. Intellectual endeavor which previously was not attended by undue fatigue, now is followed by languor. Also physical effort is accompanied by a new weariness.

Our council should be, therefore, against undue anxiety during this presenile period. New undertakings involving large financial responsibilities should be avoided. Involvement in legal procedures is a strain that takes a large toll in this period and should be avoided if possible.

The pressure of social duties should be minimized, the strain of "late hours," large gatherings, indigestible food at late hours should be properly regulated.

Sleep is a problem of the senile and presenile period that should be most carefully considered. The tendency is toward shorter hours of sleep and to wakefulness. Unfortunately the body at this age is needful rather of more than of less sleep. Consequently it should be our aim, medically, to bring about conditions conducive of sleep. We may well employ prolonged neutral baths before retiring, sedative drinks, and occasionally mild sedatives. Above all we should insure physical relaxation in the hours preceding retirement.

In pursuance of our aim of bringing about moderation, we should aim at a rather definite plan of daily activity, including reasonable amount of exercise, rest, recreation, etc. Probably in this connection one of our outstanding efforts should be in the development of a hobby. We might almost consider the old person without a hobby as a hopeless problem. By inculcating a real interest in the presenile period we may avoid the later resort to the childish procedures often introduced in the senile program of trivial manual pursuits. Many practical suggestions in this regard may be found in Dr. Lillian Martin's recent book on the subject of Old Age.

Our effort in these comments is to urge a far-sighted consideration of senile problems, beginning in the presenile period, rather than waiting

for the hopelessness of senile dementia. We do not mean to suggest that the result of senile and arteriosclerotic changes in the brain can be overcome, but we do suggest that with reasonable planning the manifestations of these changes may be minimized and the individual made a much more agreeable person for himself and for others to live with.

A Cash Incentive to Broader Public Relations.—The Board of Trustees, impressed with the activities of the Committee on Publicity of the Philadelphia County Medical Society and the determination of the Committee on Public Relations of the State Society to make the year 1932 a banner year in the development of a better understanding by the people of Pennsylvania of the purposes of our organized medical profession, have evolved a plan for participation by the State Society in the endeavors of wide-awake county societies to develop closer contacts with the community health and sickness problems in their respective counties.

The reasons for such stimulation, the source, character, and method of imparting such knowledge to the public and the process by which approval may be expressed in terms of financial assistance, are all set forth in the accompanying resolution adopted by the Board of Trustees at their meeting December 8, 1931. The chief aim in this action by the Board of Trustees is encouragement to even the smallest of our active county societies in all efforts to convince the people of their respective counties that the local medical profession is progressive, unselfish, and capable of and willing to assume leadership in all community activities pertaining to sickness prevention.

Resolution:

Whereas, It is believed that the public relations activities of certain of our component county societies by means of authoritative and properly censored articles in the public press and over the radio, extend their benefits to the public and redound to the credit of physicians in certain surrounding counties; and

Whereas, It is believed that the State Society can best advance the relations of its members with the public throughout the state by offering financial assistance as well as educational leadership to the component societies which have developed a proper interest in such work; and

Whereas, The expense of carrying on such activities varies in the different county societies; therefore be it

Resolved, That the Board of Trustees of the Medical Society of the State of Pennsylvania approve the reimbursement to such component societies of such expense, on recommendation to the Board by the Public Relations Committee of the Medical Society of the State of Pennsylvania, to an amount not to exceed fifty cents for each member of any such component society whose dues in the State Society are paid April 1 of any current year.—*Pennsylvania Medical Journal*, January, 1932.

Deep Burns Caused by Roentgen Rays.—Deep burns caused by roentgen rays occur much too frequently and the danger of causing such burns should be stressed rather than minimized. The destructive powers of roentgen rays and radium are very great and must be considered as well as their curative powers. There is no question that, therapeutically at least, these agents should be used only by experts and even then with the utmost caution. Early and wide excision of deep burns caused by roentgen rays or radium, with closure of the defect thus made, by tissue shifting, promises more surely than any other method yet devised the elimination of pain, an excellent prospect of permanent healing and in many instances the restoration of function and, in addition, gives a reasonable assurance of safety from subsequent malignant degeneration.—*Journal of American Medical Association*.

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Leaflet Regarding Rules of Publication.—California and Western Medicine has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this journal write to its office requesting a copy of this leaflet.

EDITORIALS*

DANGEROUS DOLLARS—THE EVIL INFLUENCE OF EXORBITANT FEE CHARGERS

A Former Editorial on This Subject.—In an editorial printed in the January 1926 number of CALIFORNIA AND WESTERN MEDICINE, the late William E. Musgrave, former editor, under the caption "\$ \$ Dangerous Dollars \$ \$," discussed some of the evil effects which result to the prestige of the entire non-sectarian medical profession, through exorbitant charges by a comparatively small number of members of the profession.

* * *

An Experience With a Mid-West Charger.—When the other day the present editor received a copy of an itemized statement, for services rendered by a physician in a moderate sized city in a mid-west state, to an elderly patient to whom he had been called to give treatment for a fractured neck of the femur, the editorial above referred to was recalled.

The bill of the mid-west physician was sent to the Los Angeles representative of the estate of the patient, and because of the seeming size (the entire estate of the deceased patient amounting to about ten thousand dollars), this heir, through an

* Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Medicine Today column, which follows.

attorney, sent the statement to one of the officers of the Los Angeles County Medical Association with request for an opinion thereon. It has been stated to us that "the attorney made the statement that the bill seemed excessive to him. He had made the proposition to the mid-west attending doctor that the bill be presented to any three men selected by the officer from the Los Angeles County Medical Association, but the mid-west doctor refused this mode of adjustment."

* * *

Why This Specific Case Is Referred To.—This information is here given because in a discussion of professional charges it seems wiser to use as a basis for comment, concrete instances rather than generalized or abstract statements. There may be some who would hold that matters such as these should be taken up only in executive session. In theory such a plan may be good, but in practice it has been found to lead to nowhere.

It is generally admitted that exorbitant fee charging by some members of the medical and dental professions is a something that is nowadays met with, considerably more often than was the case one or two decades ago. The question really comes up as to whether or not one of the reasons for the existence of the present-day larger number of exorbitant fee chargers is not due to the fact that the subject is so nasty and so personal that most physicians desire to remain aloof from official action or contact therewith, even though in discussions with one another they roundly condemn the exorbitant fee chargers who besmirch the profession. When, however, it is realized that the small group of exorbitant fee chargers, more than almost any other factor, have in recent years destroyed much of the reputation formerly possessed by the medical profession for humanitarian and honorable dealing, it naturally follows that aloofness or non-discussion of deplorable exorbitant fee facts will only make matters worse, instead of better.

It is the viewpoint of many physicians that this small number of exorbitant fee chargers who are scattered through the profession have in recent years brought more disgrace to a noble guild than did the shysters or out and out quacks of days gone by, who in that time were supposed to be part of us.

These modern day exorbitant fee chargers conceal their basely commercialistic motives when they apply for membership in our medical organizations; and once in, are usually most unctuous in their personal relationships with colleagues. Thus they use their high pressure salesmanship methods, not only to mulct their patients of money out of proportion to services actually rendered (as based on service charges of fellow practitioners of equal capacity) but they seduce their fellow practitioners into thinking that their characters are far different and more honorable than is actually the case.

If their misdeeds in the way of extortion reacted only upon themselves, then the profession

would have little need to give them further thought. Unfortunately, however, every outrageous example of exorbitant fee charging is passed from lay person to lay person, until even well and kindly thinking members of the lay public are tempted to believe that nearly all members of the medical profession suffer from the same grasping dollar taint; except that some of the profession are more daring than others in the nefarious game. And because the stories of their excessive fees become a topic of general lay and professional conversation, these extortion specialists become powerful agents in seducing recent graduates from the profession's traditions of efficient service at decent compensation, to embark on careers of practice in which the sordidness of base monetary acquisitiveness becomes paramount to the doctrine of real service.

* * *

The Concrete Mid-West Case.—Let us go back to the itemized statement of the mid-west physician, a young doctor out of college only some five years or so, who is in general practice and is not an orthopedic or surgeon specialist, and who sent to an elderly woman with a fractured femur (having total means amounting to about ten thousand dollars), a statement for professional services amounting to \$4,900; and who, when requested to modify this bill, as above indicated, refuses to do so. The copy of the statement which we have been given, with deletions of identifying place, is as follows:

October 15, 1930.

To the Estate of	
The National Bank of City), Executor.	
February 2, 1930.—Physical examination, diagnosis, application of splint, etc.....	\$ 250.00
February 3 1930.—Operation, reduction of fracture, application of body cast, etc.....	1,500.00
February 3 to April 15, 1930.—145 hospital visits, including treatment of fracture and intravenous injection for chronic arthritis, and treatment of ulcers at \$10 per visit (Editor's Note. A period of 70 days).....	1,450.00
March 10, 1930.—Operation, removal of cast, re-application of bivalved cast, curettement of ulcers and treatment of ulcers.....	850.00
April 15 to May 4, 1930.—Forty home visits, including treatment of fracture, intravenous injections for arthritis, treatment of ulcers at \$15.....	600.00
May 4, 1930.—Night house visit, five hours' detention with patient, injection of stimulants, artificial respiration, etc., attempting to save patient from death, at \$50 per hour.....	250.00
Total for professional services rendered.....	\$4,900.00
Paid on account 2/9/30, \$85; 2/17/30, \$35; 2/25, \$35; 3/1, \$35; 3/8, \$35; 3/15, \$35; 3/22, \$35; 3/29, \$15.	
Total paid on account.....	\$ 310.00
Amount due.....	\$4,590.00

Readers of CALIFORNIA AND WESTERN MEDICINE can come to their own conclusions as to the justice of charges such as the above; and can estimate for themselves the effect which publicity of such charges will have in that particular community, in forming lay opinions on the local medical profession's standards of fair dealing.

* * *

Some California Cases Cited in a Former Editorial.—We shall leave this subject at this time

by presenting excerpts from the CALIFORNIA AND WESTERN MEDICINE editorial previously referred to, written in the year 1926. What Doctor Musgrave then said, particularly in his last paragraphs, is as pertinent today as when written in that year. The excerpts are as follows:

"... Another successful business man relates his experiences with Doctor A B C, who sent him a bill for \$5000 for a simple uncomplicated operation for removal of the appendix. . . ."

~ ~ ~

Another victim writes:

"What's getting into you doctors, anyway? You can't all be grafters, but unless you take up and solve some of your problems and, in particular, shear some of the dirty crooks who wear the cloak of your noble calling, it is not difficult to foresee dire consequences. . . ."

~ ~ ~

"... It seems that a wealthy easterner, an elderly man who came West every winter, went down with pneumonia. A well-known doctor was called in, and he in turn called another doctor in consultation. The old gentleman died. The banker was called upon to make arrangements to take the body back East. The illness lasted about two weeks, and the bill for the first doctor was \$15,000, and the bill of the other was \$5,000. The banker had been instructed to settle all debts, and he went to these doctors and they smiled him out of their offices at the mention of a reduction in the fees. He then went back to them with a compromise offer, of something like \$5,000 and \$1,000. Again he was smiled out of their offices. He then went to a very well known lawyer and said, 'Get these two birds,' and I think they settled on the basis of \$500 and \$250, respectively. . . ."

~ ~ ~

"... These are isolated instances of panhandling, to be sure, and we have others much worse than these, but difficult to disguise without destroying the point aimed at and too disgraceful to publish, even were it expedient to do so. When our collection of these depressing narratives gets a little larger, we propose to tabulate them for the information of the profession. It seems that the majority, if not all these commercialists, have certain common and obvious characteristics: They are amazingly egocentric, pompous, and invariably severely destructive critics of their own organizations and the 'moss-covered ethics' that their more worthy colleagues love to honor. The most stupid characteristic of these gentry is that they act as if they thought their well-covered heads also made invisible their slimy coats of muck, whereas their doctor acquaintances know them, and more and more of their patients are finding them out.

"Is there a cure for this 'cancer' that is getting a hold upon a humanitarian profession? Of course there is, but it may require some fearless surgical work without too much anesthetic. *We don't want to wash dirty linen in public, but only the sunshine and breezes of the great open places will remove some odors and bleach certain materials.*"

SIXTY-FIRST ANNUAL SESSION OF
C. M. A.—AT HOTEL HUNTING-
TON, PASADENA
MAY 2-5, 1932

Make Your Reservations Now.—The full program of this year's—the sixty-first annual session of the California Medical Association—will be printed in the April number of CALIFORNIA AND

WESTERN MEDICINE. Our 1932 annual session will be held in the commodious Hotel Huntington, which is located in the beautiful Oak Knoll district, overlooking the San Gabriel valley, and at a time—May 2 to 5 inclusive—when the hotel will be practically given over to the sole use of California Medical Association members. If you are planning to attend this annual session, you should make your reservations now. (For rates, see California Medical Association column in this issue, page 200.)

* * *

Advantages and Pleasures of Annual Session Meetings.—The advantages and pleasures to be derived from attendance at the scientific meetings and social functions of California Medical Association annual sessions have been presented year by year. The story, however, never loses its charm to those members who are in the habit of attending, because the anticipations of each year are always more than realized as one sees faces of old friends and grasps the hands of kindly colleagues.

As regards annual sessions, the California Medical Association is more fortunate than most state medical societies, because the very large tourist hotels of our State, at places like San Francisco, Los Angeles, Coronado, Del Monte, Yosemite, and Pasadena permit variation in meeting places year by year, but with always the beneficent and desirable feature whereby the majority of attending members are housed under one roof. Thus good fellowship contacts are made possible that could not be realized under less favorable conditions.

It is hoped that California Medical Association members who register as guests will not be limited to cities and communities far away from Pasadena, but will include also many members of the Association who reside in Los Angeles. If you who read this are skeptical of what is here stated, let us urge you to prove our contentions by being among those who will be found quartered in the Hotel Huntington at Pasadena on May 2-5, next. We are certain you will not regret being in attendance.

C. M. A. DEPARTMENT OF PUBLIC RELATIONS ORGANIZES

Report of the Council's Special Committee.—Among the several resolutions passed by the House of Delegates of the California Medical Association at the sixtieth annual session held at San Francisco in April 1931, was one instructing the Council to organize a Department of Public Relations. The proposed establishment of such a new department made necessary considerable preliminary investigation and planning. In last month's CALIFORNIA AND WESTERN MEDICINE (February issue, page 125, item 29), was printed the report of the Council's special committee, consisting of Doctors Lyell C. Kinney of San Diego, Joseph M. King of Los Angeles, and Karl

L. Schaupp of San Francisco. That report outlined a method of organization for the new department and was adopted by the Council. In accordance therewith, the Advisory Committee to the department came into being. The Advisory Committee consists of certain officers and committeemen of the Association who hold office in the department, ex-officio. (The roster of the Advisory Committee is printed in the CALIFORNIA AND WESTERN MEDICINE directory, advertising page 2.) After this was done, the Council and the Advisory Committee looked about for a good director or executive secretary of the department. The Council's choice finally fell on Dr. Walter M. Dickie, former director of the California State Board of Health. During the last month Doctor Dickie has been busy laying the ground plan for the work of the department. (See, also, in this issue, page 201.)

* * *

The Scope and Work of the New Department. Sections 1 to 4 of the above special committee report indicate the general scope and aims of the department. Because of the importance of this new activity of the California Medical Association, these four sections may well be here reprinted, so that all members may have a good orientation of what is contemplated. These sections are as follows:

Resolved, That the structure and function of the Department of the Public Relations be as follows:

1. The function of the department shall be to promote the leadership of the medical profession in public health activities, public health education, legislation dealing with public health and medicine, and in the distribution of adequate medical care.

2. The actions, policy and budget of the department shall be authorized by and subject to the approval of the Council of the California Medical Association, or of the Executive Committee under authorization of the Council.

3. The director of the department shall also have the title of "executive secretary" as provided by the Constitution of the California Medical Association. He shall be appointed annually by the Council at its reorganization meeting and his salary and duties shall be fixed by the Council. He shall be a graduate doctor of medicine, but need not necessarily be a member of the California Medical Association.

4. The director shall, with the coöperation of the Advisory Committee, assist the component committees of the department in carrying out their respective duties as designated in the Constitution of the California Medical Association or as defined by the House of Delegates or Council.

It is planned in subsequent issues of CALIFORNIA AND WESTERN MEDICINE to maintain a regular Department of Public Relations column, which will give progress reports on work in hand for the information of members of the Association.

In the meantime, every member who is interested and who has suggestions to offer, is cordially invited to send the same to the California Medical Association Department of Public Relations, care of Dr. Walter M. Dickie, Room 2039, Four Fifty Sutter Building, San Francisco. Such coöperation will be much appreciated.

CALIFORNIA STATE MEDICAL LIBRARY

Advisory Board Meets and Organizes.—Not to make the subject tiresome through continued reference, but because it is of real importance to those physicians who desire to keep themselves in touch with the latest literature concerning diseases and medical experiences in which they are especially interested, the California State Medical Library is again mentioned in these columns.

Assembly Bill 477 passed the California Assembly on May 5, 1931, the California Senate on May 14, 1931, and was approved by Governor James J. Rolph on June 9, 1931. The sum of \$42,175.96 was transferred from the contingent fund of the Board of Medical Examiners of the State of California to the regents of the University of California on December 28, 1931.

The Advisory Board, consisting of the presidents of the University of California, of the California Board of Medical Examiners and the California State Board of Health and the deans of the Medical School of the University of California and of the Los Angeles Medical Department, University of California, on call by President Robert Sproul of the State University met at San Francisco on February 16, 1932, to discuss best ways and means of organization. President Robert Sproul of Berkeley was elected chairman of the Advisory Board, Dr. George H. Kress of Los Angeles, vice-chairman, and Dr. Langley Porter of San Francisco, secretary. A budget and tentative program of procedure were agreed upon, the recommendations to be transmitted to the regents of the University by President Sproul. Through the annual directory of the California Board of Medical Examiners, a copy of which is sent to every licensed physician in California, and through CALIFORNIA AND WESTERN MEDICINE, it is hoped to acquaint all members of the California Medical Association concerning the scope of the packet library service it is planned to inaugurate, and the manner in which the same may be utilized by physicians in all parts of the State.

* * *

Present Plans.—For the time being, reading rooms will not be established, since these already exist in the medical libraries at San Francisco and Los Angeles. It is hoped, however, to make possible an efficient packet library service that will be available to every licensed physician and surgeon of California. Owing to the somewhat limited initial appropriation for organization and maintenance, it will be necessary to proceed with caution in order to avoid future financial pitfalls. However, it is felt that with increasing experience and contacts in this state medical library packet service, the work performed will be of such nature as to insure a permanent place for the institution in the good will and coöperation of the medical profession of California. After the regents of the University have passed on the recommendations which will be submitted by President Sproul, further reports will be given in CALIFORNIA AND WESTERN MEDICINE.

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA

California Medical Association has Sponsored All Licensure Laws for the Protection of the Public From Incompetents.—California's first Medical Practice Act became a law in the year 1878. It was sponsored by our state medical organization which at that time had the name, Medical Society of the State of California. During all the intervening years of this last half-century, it has been the California Medical Association that has sponsored the basic licensure laws that have found a place on the statute books of California. During this period the members of the different boards of medical examiners, almost without exception, have also been members of the California Medical Association.

The complex situations which have arisen in California healing art licensure during the last two decades or so, because of the advent of multiple cultist boards, have been commented upon in these columns from time to time in the past. The subject is a live one, intimately connected with medical standards and interests, and no doubt will continue to be discussed during all the years to come.

* * *

Requisites of a Good Examining Board.—A medical examining board that functions efficiently must not only be composed of members who possess proper academic and clinical experience backgrounds, but its members must be exemplars of integrity, and also be efficient, loyal and, one might add, altruistic public servants.

The key-men on an examining board are the president and the executive secretary. The first not only to preside at meetings, but to know the licensure laws, and when the board acts as a court, to function as a fair and honest judge; and the secretary-treasurer to so keep the records of applicants and of licentiates that such data will give an accurate portrayal of essential scholastic and other facts concerning all who have or who aspire to receive licenses to practice medicine and surgery.

* * *

Reappointment of Doctors Percy T. Phillips and Charles B. Pinkham.—The people and the medical profession of the State of California have been fortunate in having had as members, and respectively as president and secretary of the examining board for a period of almost twenty successive years, Dr. Percy T. Phillips of Santa Cruz and Dr. Charles B. Pinkham of San Francisco.

The terms of these two members recently expired. The California League for the Preservation of Professional Rights and other organizations deemed it wise to request all county medical societies of California to pass resolutions calling the attention of Governor Rolph to the desirability of reappointing these two faithful public servants.

It is a pleasure to be able to announce that Governor James Rolph has made such appointments. It may therefore be taken for granted that Doctors Percy T. Phillips and Charles B. Pinkham, with the aid of their fellow members, will continue to carry on and forward the important work of protection of the health interests of the citizens of California.

CALIFORNIA STATE DEPARTMENT OF PUBLIC HEALTH

New Appointments to the Board.—Newspaper dispatches of February 13 chronicled the appointment of the following new members to the State Board of Health: Dr. John H. Graves of San Francisco, Dr. Edward M. Pallette of Los Angeles, Dr. Gifford L. Sobey of Paso Robles, and Dr. Junius B. Harris of Sacramento. The above names direct attention to the fact that on the State Health Board as now constituted are several colleagues who long have been identified with the work of organized medicine in California. Thus may be mentioned: Dr. John H. Graves, who was president of the California Medical Association in 1924 and is now vice-speaker of its House of Delegates; Dr. Junius B. Harris of Sacramento, who is the present president of the California Medical Association; and Dr. Edward M. Pallette of Los Angeles, who is the present speaker of the House of Delegates of the California Medical Association. In the reorganization of the board, Doctor Graves was elected president and Doctor Pallette, vice-president.

* * *

Intricate Problems of Modern Public Health Work.—As these colleagues take up their new duties on the State Health Board, CALIFORNIA AND WESTERN MEDICINE extends to each its best wishes for a career of public service that shall be recorded as having been well done. At the same time appreciation for past labors is expressed to the former members of the board, who, through the exigencies inherent in political changes, have been retired.

There is much public health work to be done in California. Thorough knowledge and clear thinking is necessary in the solution of many of the intricate public health problems which today face practically every community in California. The past contacts of the new members of this important state board warrant the belief that they will study problems carefully from all angles, and properly evaluate policies. It is gratifying to know that Governor James Rolph has appointed men to this important board who possess in such large measure the confidence and good will of the medical profession of our State.

Report of the Committee on Educational Policies of the Association of American Medical Colleges.—During the past year the Committee on Educational Policies has continued its study of graduate medical education. Through the coöperation of the National Board of Medical Examiners the Committee has had opportunity to confer with representatives from most of the national group of specialists. In addition to

such conferences, we have had considerable correspondence with groups and individuals interested in graduate study.

The Committee recommends the following basic fundamental requirements for preparation for the practice of the specialties:

1. Graduation from a recognized medical college.
2. One year's internship which should involve general clinical work. This should preferably be a rotating internship or one in which general diagnosis and general treatment are stressed.
3. Residency, which might be in a broad special department, such as medicine, surgery, gynecology and obstetrics. This residency might consist of an assistantship in preclinical departments, such as pathology, physiology, etc. In lieu of the residency, the requirement might be three years' experience under supervision or five years' general practice.
4. Not less than two years graduate clinical work under supervision of a university. The candidate in addition should be required to take sufficient training to attain a superior knowledge in the fundamentals which underlie diagnosis and treatment in his clinical field. The departments with which he has worked shall certify that in their opinion the candidate is competent to begin the practice of his specialty in a scientific manner without supervision. The candidate may then present himself for an adequate examination by the university.

The candidate should receive adequate recognition of his attainment from the university.

It is recommended that a copy of these recommendations be sent to the various medical colleges with the suggestion that they survey their resources and facilities in order to provide increased opportunities for graduate training as above outlined.

(Signed) L. B. Wilson, E. S. Ryerson, John Wycokoff, F. T. Van Beuren, Jr., H. G. Weiskotten, Chairman.—*Journal of the Association of American Medical Colleges.*

A Governor Looks at Chiropractic.—Governor Buck of Delaware has returned to the legislature, without his approval, a bill to create a board of chiropractic examiners and to regulate the practice of chiropractic. His summarization of the reasons for his veto is so clear and terse that it should be read by the legislators and governors of every state that is threatened or already afflicted with this cult. His statement follows:

"The purpose of the act, as I understand it, is to legalize the practice of chiropractic in this state. Practitioners of this cult are not recognized now. Do they profess to be doctors in the same sense of the term as is commonly understood to apply to men and women of the medical profession? In so far as I am able to determine, there is not a recognized medical school in the country that includes in its curriculum a course in chiropractic. This fact in itself seems singularly significant.

"Even to the lay mind the idea that all disease of whatever character is due to spinal displacements of a mild sort, and that cures of such ailments as tuberculosis, smallpox, diphtheria, scarlet fever and others can be effected by manipulation and fingering of the spine is preposterous.

"Before returning this bill to you I have satisfied myself that the training and education a chiropractor, or drugless healer, needs to practice his art does not fit him properly to advisedly treat the sick, inasmuch as he is not qualified to diagnose ailments nor recognize communicable diseases and to take measures to control them. He is, therefore, an opponent to the department of health.

"Wherefore, it seems to me it would be inconsistent for the legislature to appropriate, as it will do, money for the state board of health, which board is trying to eradicate communicable disease, and at the same time legalize the practice of a cult which does not believe in the germ theory of a disease but does teach and believe that such diseases as scarlet fever, etc., are due to a distracted vertebra and the method to prevent and cure such disease is to see that everybody has a normal spine."—*Journal A. M. A.*

MEDICINE TODAY

This department of California and Western Medicine presents editorial comment by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to every member of the California, Nevada and Utah Medical Associations to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

Insomnia in Nervous and Mental Diseases.—

Insomnia is one of the most common conditions we are called upon to treat. A symptom not a disease, insomnia may indicate much or little. As with any symptom, its presence must be accounted for. Resulting from mental and physical irritation, it is found associated with organic or functional disease, but is not pathognomonic of any one disease. Intelligent therapy must start with an accurate diagnosis of the underlying condition of which the insomnia is the surface indication. Should organic disease be found, therapy should be directed toward that condition, the insomnia treated symptomatically.

If a thorough search eliminates organic disease as a factor, one is justified in relating insomnia to a psychoneurosis or so-called functional disorder. One must go further than merely labeling the condition. The recognition of the emotional factors responsible for the psychoneurosis is essential in eliminating the end product—insomnia. Drug treatment of this type of insomnia often results in further trouble, for the patients of this group are extremely liable to form hypnotic drug habits. Nervous insomnia is not just sleeplessness, but sleeplessness on which fear and apprehension have been engrafted. Analysis of the cause of the psychoneurosis with reeducation of the patient mentally and physically, is the only legitimate and satisfactory method of cure. During the reeducational treatment, symptomatic use of hypnotics is permissible as a means to an end. The patient should not be discharged until he is sleeping well independently of medication.

There is a group of cases which are not organic in the sense that no pathologic changes are demonstrable and are not functional in the sense that they never become normal. In this group, which we call constitutional psychopathic individuals, are to be found the most intractable cases of insomnia and the greatest incidence of hypnotic drug habits. These patients are therapeutically impossible of cure, as is indicated by their name—constitutional psychopaths. The best the physician can hope for, as a rule, is temporary improvement. He must be careful that he does not leave his patients worse than before treatment by perhaps acquainting them with the temporary ease and satisfaction obtained by habit-forming drugs. Briefly, as we are and as our days are, so will our nights be.

H. DOUGLAS EATON, Los Angeles.

Experimental Scarlet Fever in Children.—

Although the Dicks¹ allege the reproduction of scarlet fever in human volunteers by throat inoculations with hemolytic streptococci, the symptoms developed in the adult medical student used in their inoculation tests were so meager and so inconstant that Doctor Toyoda and his colleagues² of Darien, Manchuria, doubt if the Dicks have actually reproduced this infection. The Japanese investigators concluded that it was essential for them to produce "genuine scarlet fever" by human inoculations before they were justified in assuming that the Dick streptococcus is the causative agent of this disease. With a disregard for human life that is impossible in the Western world, the oriental investigators selected a dozen or more Dick-toxin-susceptible children, from three to seven years of age, and swabbed their throats with streptococci isolated from typical cases of scarlet fever. They allege the reproduction of typical scarlet fever of marked severity in these toxin-susceptible children, with subsequent typical alterations in skin reactivity (Dick reaction, Schultz-Charlton phenomenon), but fortunately with no fatalities.

The results of greatest interest, however, of these oriental observers are their comparisons of the relative infectivity of the various strains of hemolytic streptococci thus far tested by them. The first or "old strain" of Dick streptococcus had been cultivated for 150 generations in artificial culture media. This strain produced Dick-toxin in abundance, but gave no suggestion of scarlet fever in the five children inoculated with it. Two recently isolated strains, however, both produced typical scarlet fever, although their toxin production was not greater than that of the "old" culture. The "old" and "new" strains, however, did differ in infectivity for laboratory animals. The old culture required ten to fifty times the new culture M. L. D. to kill mice. The Japanese experimenters conclude from these tests that one of the essential factors in the etiology of scarlet fever is this high infectivity, which must supplement the power to produce Dick-toxin, in order to reproduce the disease.

W. H. MANWARING, Stanford University.

¹ Dick, G. H., and Dick, G. F.: J. A. M. A., 81:1166, 1923.

² Toyoda, T., Futagi, Y., and Okamoto, M.: J. Infect. Dis., 40:350, (April) 1931.

STATE MEDICAL ASSOCIATIONS

CALIFORNIA MEDICAL ASSOCIATION*

JUNIUS B. HARRIS.....President
JOSEPH M. KING.....President-Elect
EMMA W. POPE.....Secretary

OFFICIAL NOTICE

Hotel Huntington

Rates for Annual Session, May 2-5, 1932

American Plan only.—All rooms with bath:

Double room, \$7 each person.

Two singles (connecting), \$8 each person.

Single room, \$9 each person.

Early reservation is advisable. Address Hotel Huntington, Pasadena.

DEPARTMENT OF PUBLIC RELATIONS OF THE CALIFORNIA MEDICAL ASSOCIATION

Progressive Medicine as It Is Practiced in California †

With this issue of CALIFORNIA AND WESTERN MEDICINE, a new column is started under the caption "Department of Public Relations of the California Medical Association." Until such time as fact-finding investigations of special California problems reach a point of completion to warrant special comment, it may be necessary to print here matter of a general nature which has a bearing on the aims of this department. (See editorial in this issue, page 197.) With that thought in mind, a recent article by Michael M. Davis, Ph. D., director for medical services of the Julius Rosenwald Fund of Chicago, is here reprinted.

When Doctor Davis visited California last year he had numerous meetings with members of the medical profession throughout the State. Because of his official connections, his authorship of books and broad knowledge of efforts in group medicine, his comments on his California observations are reprinted below. Coming from a visitor to California, the views of Davis should be of more or less interest to California physicians.

✓ ✓ ✓

During a visit in the late spring to San Francisco and Los Angeles, I had the opportunity to meet individually and in groups a considerable number of physicians. From officials of medical societies, from members of university medical faculties, from practitioners in various branches, I received an almost uniform impression that they and the medical profession in

* For a complete list of general officers, of standing committees, of section officers, and of executive officers of the component county societies, see index reference on the front cover, under Miscellany.

† Reprint of an article in "The Modern Hospital," December 1931, Vol. 37, No. 6. By Michael M. Davis, Ph. D., Director for Medical Services, Julius Rosenwald Fund, Chicago.

California as a whole are looking forward with open minds to impending changes in the practice of medicine and are endeavoring to make constructive plans that will enable physicians to take the leadership in these changes.

One outstanding problem faced by the medical profession in California is the recent though growing prevalence of the system of paying for medical service on an annual basis. This is regarded as a form of voluntary sickness insurance. Certain large industrial enterprises, notably the Southern Pacific Railway Company, have established systems of medical service for their employees, largely supported by regular weekly or monthly contributions from the beneficiaries, and it is probably because of the prominence and success of these industrial enterprises in sickness insurance that the idea of obtaining medical service in return for an agreed annual payment has become familiar to the population at large. Aside from examples in railway, mining and public utility corporations, the tendency is spreading in other industries, the California and Hawaiian Sugar Corporation and the General Controlling Corporation being among the large companies that are this year establishing similar services. . . .

That this idea has not only become prevalent among the employees and officers of large establishments is shown by the existence of numerous organizations, usually known as "hospital and health associations" or by some similar title, which "sell medical service" to individuals for \$1.50 to \$2.50 a month. The law in California, or its present interpretation, appears to regard such arrangements as service contracts and not as insurance. Hence, these hospital and health associations are not under the supervision of the state insurance department and do not have to comply with regulations concerning financial stability, such as would safeguard regular insurance enterprises. The consequences seem to have been unfortunate for many of those who have purchased such services. Contracts, in some instances at least, seem to be so drawn as to carry a good many exceptions in fine print so that what the purchaser thinks he is going to get will not be forthcoming when he asks for certain medical care during his illness.

Some of these organizations, however, have been in existence for ten years or more, which means that they must have given satisfactory service to their clients. On the other hand, there are fly-by-night concerns that make money on selling insurance rather than by giving service. But the striking thing is that a large section of the public is so imbued with the idea of buying medical service in this way that such "insurance" is salable. These associations engage one or more individual physicians to supply the medical care, an arrangement that tends toward buying such service at a cheap rate and of poor quality.

HOW ONE ASSOCIATION FUNCTIONS

Some of these associations are indeed owned and operated by physicians, others apparently by laymen. One was found which, while it was nominally a lay corporation, was actually in the control of three physicians who owned the majority of the stock, the two laymen concerned being mere dummies. This organization presented the entertaining spectacle of the

controlling physicians making contracts in their corporate capacity with themselves in their individual capacity as practitioners, to provide medical service to clients of the organization. Other physicians were also employed. Of course the physicians in every case retained their legal responsibility as practitioners for the medical care of their cases. Here is a nice question for the legal mind: Is such an organization a corporation practicing medicine?

LOS ANGELES COUNTY MEDICAL ASSOCIATION AND THE METROPOLITAN WATER BOARD

The constructive efforts of the medical profession of California are illustrated by the recently published plan of the Los Angeles County Medical Society, under which the society has agreed with the employees of the Metropolitan Water District of Los Angeles, in return for a fixed monthly payment from each member, to provide home or office care at agreed rates on a fixed published schedule, which is specified also for laboratory service, surgical operations and for hospital care. The monthly payment for each employee is to be \$1.50 to start with, with the expectation that this may have to be revised as the result of experience. The individual employee has the free choice of physicians among all the members of the medical society, but no individual physician is obligated to give service under these conditions unless he chooses to do so.

In an editorial in the June 18, 1931, bulletin of the society, the following comment is made on this plan:

"The working out of the basis of the coöperation with the Metropolitan Water District has given an opportunity to put into effect a trial of the practice of medicine on a group purchase plan basis, which allows all members of the Los Angeles County Medical Association to participate, instead of limiting the work to a small group. In the conferences between the special committee handling this matter and the representatives of the Metropolitan Water District, it has been distinctly understood that the plan as printed in this issue of the bulletin is an experimental one, and it is hoped that every member of the association will give whole-hearted coöperation in this effort to establish definite facts, so that we may avail ourselves of the accumulated knowledge for future contacts with various public and private organizations employing large groups of persons with a low earning capacity. It is understood that each member will give the best of his services and refrain from building up the fees unnecessarily, and in the event that proper treatment cannot be given on the basis of the fee schedule as arranged, adjustments will be made by the Metropolitan Water District and this committee.

"After a sufficient time has elapsed to have proved or disproved the correctness of this plan, a committee representative of the association will act as arbitrator in cases where inequity is thought to exist between the doctor, the patient and the Metropolitan Water District. This entire plan was read to the council at its last meeting and was unanimously approved and a vote of appreciation given to the committee for the manner in which this contract has been worked out. It is the hope of the council and of your officers that the membership as a whole will reciprocate with the Metropolitan Water District, as this appears to be a step forward in the solution of the much discussed problem of state medicine."

COMBATING THE SECTS AND HEALERS

California physicians face one difficulty more than those of any other state—the sects and the healers. If one opens the classified telephone directory in Los Angeles, one finds something that I have seen

in no other city in the United States. Under the heading, "Physicians and Surgeons," there appear as sub-headings, "chiropractic physicians," "osteopathic physicians," "naturopathic physicians," each in alphabetical order, and (save the mark!) "medical doctors," under which heading the licensed practitioners with the degree of M. D. are found. One of the deans of the profession in Southern California said to me, "We have had no success whatever in combating the sectarian practitioners and the healers. When we have fought them, the citizens of the state have backed them up, even by referendum. They have sometimes capitalized our opposition in order to win support for themselves as underdogs. How can we deal with this problem?"

The constructive method of dealing with it has already been illustrated by the attempt to supply service of a quality that will insure satisfactory results through a system and amount of payment that will satisfy the client financially. It is significant that the California State Medical Society is grappling with this problem constructively, illustrating in a larger way what the county society is attempting. Through a committee officially appointed by the state society, a plan is being worked out for demonstrating how medical services can be supplied to a considerable area, such as a county, at an agreed annual sum per person, and with a specified schedule of rates for the various forms of medical service. As an officer of the society said to me, "The citizens of California are demanding something. If we of the medical profession do not meet the demand, lay groups will take away from us the power of initiative."

* * *

Next month additional matter of current interest will be given. At the annual session to be held at Pasadena on May 2-5, it is hoped to bring in a tentative progress report. In the meantime, suggestions from members will be gladly received.

WALTER M. DICKIE, M. D.,

Director of Department.

Room 2039, Four Fifty Sutter, San Francisco.

CANCER COMMISSION OF THE CALIFORNIA MEDICAL ASSOCIATION

Program for Pasadena Meeting.—Attractive features of the cancer field are in preparation for the California Medical Association meeting in Pasadena, May 2-6. As announced in this column in January, the California Medical Association Council has invited as one of the guest speakers Dr. Robert B. Greenough of the Harvard Cancer Commission and Cancer Committee of the American College of Surgeons. Doctor Greenough will speak on "What the Medical Profession Can Do to Reduce Cancer Mortality." Following his address the Cancer Commission will offer a report of its activity during its first year of work.

Following the first general session on Monday, a luncheon will be arranged for members of all the Cancer Commission committees and others interested, at which plans for the work of the ensuing year will be discussed.

On the second day of the convention, the section of which Dr. S. H. Mentzer is secretary plans a symposium on a number of interesting surgical aspects of cancer. In addition, the Section on Pathology will devote its Wednesday morning session to a round-table conference on cancer, a paper being read on "The Relation of Chronic Cystic Mastitis to Cancer of

the Breast," with Doctor Greenough participating in the discussion.

Directed by the Pathology section leader, Dr. Z. E. Bolin, and Dr. Newton Evans of Los Angeles, the Commission is at work on arrangements for a special microscopic pathology conference planned for the pathologists attending the convention—this to be held on Sunday, May 1, at the White Memorial Hospital in Los Angeles. Detailed arrangements will be announced later.

California Conference of Social Work.—The California Conference of Social Work has appointed a special Committee on Cancer and offered its coöperation to the Cancer Commission of the California Medical Association. This committee consists of: Walter M. Dickie, M. D., of Berkeley, Chairman; Ruth Cooper, Director of Social Service, Los Angeles County General Hospital; N. Florence Cummings, Director of Social Service, Stanford Hospital, San Francisco; William R. Dorr, M. D., Superintendent of Riverside County Hospital, Arlington; and Margaret L. Spiers, Berkeley Health Center. The social service problem in the control of cancer will be given special attention through this committee's activities at a conference to be held in Riverside during the first week of May.

Extension Committee.—Cancer programs were given under the auspices of the Cancer Commission before the San Joaquin County Medical Society on December 10, 1931, before the Fresno Society on February 2, and before the Tulare Society on February 28. A similar program is being planned for a joint meeting of the Stanislaus, Merced, and Tuolumne County Medical Societies.

In Southern California the Glendale Branch of the Los Angeles County Medical Society turned over its meeting of February 15 to a team of men representing the Cancer Commission. Requests have come in from the Pasadena and Santa Monica Branches for evening programs in the immediate future.

The following county societies have been visited with the district councilors and plans of the Cancer Commission presented by a member either of the Commission or of the Extension Committee: Northern District Medical Society, October 13, 1931; Napa, November 4; Sonoma, November 12; Monterey, February 5, and Santa Clara, February 17.

THE WOMAN'S AUXILIARY OF THE CALIFORNIA MEDICAL ASSOCIATION*

Official Notice

The state board of the Woman's Auxiliary is offering prizes of \$25, \$15, and \$5 for the three best papers on "Educating a Doctor's Wife." This contest is open to any doctor in California who is in good standing in the state society, his wife, and children. Maximum number of words is 500; minimum number, 200. Papers should be sent to Mrs. W. H. Sargent, 109 Beechwood Drive, Oakland, not later than March 31, 1932. The names of the judges will be announced in *CALIFORNIA AND WESTERN MEDICINE*. The winning papers will be read at the annual session of the California Medical Association Woman's Auxiliary in Pasadena the first week of May.

* As county auxiliaries to the Woman's Auxiliary of the California Medical Association are formed, the names of their officers should be forwarded to Mrs. Louis H. Dyke, chairman of Publicity and Publications Committee, 6008 Rose Street, Oakland. Brief reports of county auxiliary meetings will be welcomed by Mrs. Dyke and must be sent to her before publication takes place in this column. For lists of state and county officers, see advertising page 6. The Council of the California Medical Association has instructed the editors to allocate one page in every issue for Woman's Auxiliary notes.

A meeting of the state board of the Woman's Auxiliary to the California Medical Association was held on February 6 in Santa Barbara at the Hotel Vista Mar Monte.

Mrs. Doane gave an interesting report on the auxiliary program for the state convention in May. This program will be announced in the April number. The auxiliaries are urged to send as many members as possible to the convention since many delightful events are being planned for their entertainment.

The members of the Santa Barbara Auxiliary entertained the members of the state board at a delightful tea immediately following the business meeting. The tea was held in the Hotel Samarkand and Mrs. Henry J. Profant, the president, who is a pianist of note, entertained the guests with some delightful numbers. The guests also enjoyed the gardens of the hotel, some of the most beautiful in the city of Santa Barbara.

The following members of the board were present: Mrs. William H. Sargent, president; Mrs. F. E. Coulter, president-elect; Mrs. C. Stevens, first vice-president; Mrs. S. W. Weil, second vice-president; Mrs. M. Harding, recording secretary; Mrs. A. R. Alexander, corresponding secretary; Mrs. C. J. Teass, treasurer; and councilors Mesdames J. B. Barrows, W. L. Blodgett, F. E. Clough, P. S. Doane, L. H. Dyke, A. M. Henderson, C. P. Proudfoot, and L. C. Kinney.

Component County Auxiliaries

Contra Costa County.—The Woman's Auxiliary to the Contra Costa Medical Society were entertained at their regular meeting at the home of Mrs. C. R. Blake, president, on January 12. The state president, Mrs. W. S. Sargent was the guest of honor. Mrs. Sargent outlined the program for the coming year and explained the essay contest which is now being sponsored by the state board.

Mrs. L. A. Hedges was appointed county hygeia chairman and Mrs. U. S. Abbott, chairman of the Speakers' Bureau. At the request of Doctor Church, the county health officer, Mrs. S. N. Weil and Mrs. J. N. McCullough were appointed to study the status of milk inspection throughout the county. These members will confer with Doctor Church and endeavor to offer constructive suggestions.

A delightful luncheon was served by Mrs. Blake, following the business session.

Santa Barbara Auxiliary.—The regular meeting of the Woman's Auxiliary to the Santa Barbara Medical Society was held in the staff room of the St. Francis Hospital December 14, with the president, Mrs. H. J. Profant, presiding. There were thirteen members present.

Dr. F. J. Nuzum's talk on "Research Problems of the Cottage Hospital Laboratory" proved very interesting.

Mrs. Profant read a note from Dr. W. E. Johnson thanking the auxiliary for its expression of sympathy in his recent bereavement.

The next meeting being the annual meeting and election of officers, the president appointed on the Nominating Committee Mrs. Mellinger, chairman, assisted by Mrs. Blaisdell and Mrs. Freidall.

Our state president, Mrs. W. H. Sargent, spoke on the aims and purposes of the auxiliary. The auxiliary provides a medium between doctors and laity, and creates a better understanding between the doctors and their families. She urged that the magazine *Hygeia* be placed in public schools and other public places. The president appointed Mrs. R. F. Atsatt as chairman of the activity.

Following a general discussion refreshments were served by Mesdames Henderson, Roome, and Mellinger, and a social time was enjoyed.

The annual meeting of the Woman's Auxiliary to the Santa Barbara County Medical Society was held in the St. Francis Room of Del Paseo, Monday evening, January 11, with a delicious dinner preceding the business session. Fourteen members and one guest were present: Mrs. Profant, president, presiding.

Immediately following the dinner, Dr. Emily O. Lamb spoke on "The Need for a Child Guidance Clinic in Santa Barbara."

The treasurer's report was read and accepted. Receipts for the year were \$90 and disbursements, \$46.72; leaving a balance on hand of \$43.28.

The secretary gave the annual report of the year's activities.

Officers for the year 1931: Mrs. H. J. Profant, president; Mrs. H. F. Freidell, first vice-president; Mrs. C. S. Stevens, second vice-president; Mrs. W. H. Eaton, secretary-treasurer.

Six regular meetings were held during the year and one social evening at the home of the president. Two meetings were canceled and the members voted to adjourn during the three summer months.

The programs have been educational and social, with musical programs at several of the meetings. Reports of the delegates to the state convention were given at one meeting. The average attendance at meetings was twelve.

Contribution made to the Drought Relief Fund was later returned. The auxiliary assisted at a tea given at St. Francis Hospital on Hospital Day.

There are twenty-four paid-up members.

Following the reading of these reports the nominating committee presented the following names for election to office for the ensuing year, and the following officers were elected: Mrs. W. H. Eaton, president; Mrs. R. F. Atsatt, vice-president; Mrs. K. F. Wilson, secretary; Mrs. F. E. Blaisdell, Jr., treasurer.

The following article is from the resolution passed by the House of Delegates, Oregon State Medical Society, October 24, 1931:

Whereas, The Woman's Auxiliary has made notable progress during the past year in organizing the wives of physicians and interesting them in the dissemination of sound health information to the lay public, particularly in their various local clubs; and

Whereas, The aid of the auxiliary is indispensable in the promulgation of such knowledge and assisting the medical profession in the work of educating lay people to the great truths of scientific medicine; therefore be it

Resolved, That the House of Delegates of the Oregon State Medical Society express to the Woman's Auxiliary its deep appreciation of their invaluable services and pledge its whole-hearted support to their future program.

COMPONENT COUNTY SOCIETIES

CONTRA COSTA COUNTY

The February meeting of the Contra Costa County Medical Society was held on Tuesday evening, February 9, at the nurses' home of the County Hospital at Martinez.

The meeting was called to order by the president, Dr. S. N. Weil of Rodeo. A letter was presented from Mrs. L. H. Fraser, secretary of the Woman's Auxiliary, explaining the details of a proposed contest on "Educating a Doctor's Wife." A very gracious note of thanks was read from Dr. C. L. Abbott, in appreciation of his having been elected an honorary member of our local society.

Under new business, application for membership was presented from Dr. Selby Marks of Pittsburg. It was regularly moved and seconded that he be ac-

cepted into membership, and the motion was carried unanimously.

Two technicians from the Petrolagar Laboratories showed motion pictures, one on appendectomy, the other on the anatomy of the abdominal wall. The films were very well received, showing that an interesting review of some of the basic principles is welcome. Our guests of the evening, Dr. Montague Woolf and Dr. James Morgan of San Francisco, gave a most comprehensive talk on "The Modern Treatment of Cancer of the Rectum." They presented an instructive film of the Miles abdominoperineal excision of the rectum, made in London, and the only one of its kind in the United States.

Guests who attended other than the speakers, Dr. Woolf and Dr. Morgan of San Francisco, were: Dr. Dick and Dr. Burke of Oakland, Mrs. Merry of Berkeley, Dr. Morken of Martinez, Dr. Kearns of Pittsburg, and Dr. Edmeads of Concord. Members present were: Doctors Ford, J. W. Bumgarner, Fraser, Harmon, Daily, and Clara Spalding of Richmond; Neufeld of Bay Point, Rowell and McCullough of Crockett, Beard and Sweetser of Martinez, Knorr of Concord, Weil of Rodeo, Stauffer and Marks of Pittsburg.

CLARA H. SPALDING, *Secretary*.

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FRESNO COUNTY

The regular meeting of the Fresno County Medical Society was held at Hotel Fresno on February 2, dinner being served at 7 p. m. There was a very fine attendance at this meeting, about fifty members being present.

The application for transfer of membership of Dr. Giuseppe Vercellini from Los Angeles County to Fresno County was read and accepted on motion of Dr. C. O. Mitchell, seconded by Doctor Tillman. On payment of regular annual dues, Dr. G. Vercellini will become an active member of the Fresno County Medical Society.

The police department medical plan of having an open panel on industrial fee basis was brought before the society and left for further consideration until our next regular meeting.

Announcement was made of the acceptance by the board of governors of an invitation by Dr. E. R. Morris for the society to meet at Wish-I-Ah Sanitarium for their April meeting, with a complimentary dinner, thus giving the members two months in which to make arrangements to attend this meeting. The topic for the evening's discussion, pulmonary tuberculosis, will be programmed by Dr. E. R. Morris.

Dr. J. S. Munch, the consultant pharmacologist and toxicologist for the United States Department of Agriculture, also the consultant pharmacologist for Sharpe & Dohme, who was in Fresno in an advisory capacity in regard to the cases of thallium poisoning at the General Hospital, gave a short discussion on thallium poisoning.

This was followed by the clinical program of the evening. Objectives, organization, and program of the California Medical Association Cancer Commission was explained by Dr. C. A. Dukes of Oakland, chairman.

Dr. Z. E. Bolin of San Francisco gave an excellent discussion, demonstrating with lantern slides the pathology of breast cancer. Any infiltrating growth with no capsule is practically always cancer. Methods of spread by lymphatics and infiltration were shown.

Dr. A. R. Kilgore of San Francisco gave a most helpful symposium on the proper methods of physical examination of the breast and exploration and technique of radical operation for breast cancer, which was illustrated and explained in detail by use of lantern slides.

Dr. R. S. Stone of San Francisco discussed radiotherapy of breast cancer, as to when it should be used as a preoperative measure, also postoperative, as well as the proper dosage and advantages of both.

The meeting adjourned with all present feeling that a most profitable evening had been spent.

The meeting of the board of governors was held at Hotel Fresno at 6:15 p. m., preceding the regular dinner meeting.

A letter from Curtis Publishing Company was read in regard to an article to appear in *The Ladies Home Journal*, entitled "Saver of Mothers" in which a better prenatal care for mothers is insisted upon, urging pregnant women to report to their family physician early in pregnancy in order to get better care and thereby reduce the mortality rate in childbirth. The board voted to endorse this article and instructed the president to take care of this matter.

The matter of an entirely open panel on an industrial basis fee schedule for the police department, for sickness only, among their members was brought before the board and discussed. The plan being that each member of the police department fund could call their own family physician in case of sickness and the fund would pay the physician and hospital and industrial rates for services rendered. It was decided to also bring this matter before the society at the next succeeding meeting.

The American Red Cross, Fresno chapter, asked for a consultation committee to help them in their work in the child welfare clinics of the city. This was referred to the president, to be taken up with the four pediatricians of this city.

The president appointed a committee from the society to meet with the county committee, appointed by Doctor Morris, to discuss measures for putting on a campaign for the enlightenment of people as regards early diagnosis of pulmonary tuberculosis and proper care. Those appointed were: Doctors Dau, Jorgensen, and Sciaroni.

An invitation was extended to the Fresno County Medical Society to have their April meeting at Wish-I-Ah Sanitarium, with a complimentary dinner and the evening devoted to a discussion on early diagnosis of tuberculosis. The board of governors accepted the invitation. **ELMER J. SCHMIDT, Secretary.**

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MARIN COUNTY

The regular monthly meeting of the Marin County Medical Society was held on Thursday evening, January 28, at the Meadow Golf Club of Tamalpais. The occasion was a joint meeting of the medical and dental societies. It began at 7 p. m. with dinner.

Dr. H. O. Howitt, retiring president, introduced the following new officers for the coming year: C. A. Delancy, president; C. G. Perry, vice-president; and L. L. Robinson, secretary-treasurer.

The guest speakers were Assemblyman Charles Reindollar of San Rafael and Mr. Gail Apperson of the Marin County Credits Association. Mr. Reindollar gave a very interesting talk on medical legislation and the need of closer coöperation between the local medical societies and their representatives in the state legislature. Mr. Gail Apperson spoke of the benefits derived from a local credit organization for doctors and dentists. This talk was also very interesting.

Several of the visiting dentists gave short talks, showing their appreciation of the invitation from the medical society. They stated that they would probably have a joint meeting later in the year and invite members of the medical profession. Following this, two talkie surgical films were shown by a representative of the Petrolagar Company. These talkies were the first shown in the local society and were thoroughly enjoyed by everyone, so much so that a request was made to the effect that the Petrolagar Company be given the privilege to show additional films at a later meeting.

Forty members of the medical and dental profession were present. **L. L. ROBINSON, Secretary.**

SAN BERNARDINO COUNTY

The meeting of the San Bernardino County Medical Society was held at the County Hospital on Tuesday, February 2, at 8 p. m.

The meeting was called to order by the first vice-president, Dr. Fred B. Moor, in the absence of the president, Dr. George Landon, who is ill.

There were sixty members and guests present.

The application of Dr. Arthur George of Loma Linda was passed upon and he was admitted to the society.

The program of the evening was then given:

Symposium on Influenza—History of Influenza, Dr. Frank Pritchard; Etiology and Pathology, Dr. Louisa Bacon; Classifications and Symptoms, Dr. David Mock; Differential Diagnosis, Prognosis, and Sequelae, Dr. F. F. Abbott; General Treatment, Dr. George Landon; Physiotherapy in Treatment, Dr. Fred Moor; Eye, Ear, Nose, and Throat Complications, Dr. Arthur T. Gage; Surgical Complications, Dr. E. L. Tisinger; Heart Complications, Dr. Donald Brumbaugh; Prophylaxis and Public Health, Dr. E. B. Godfrey.

After this program was given, our councilor for the third district, Dr. H. J. Ullmann of Santa Barbara, was introduced. At the conclusion of his address Doctor Ullmann answered various questions.

Meeting adjourned at 10:30 o'clock after which refreshments were served. **E. J. EYTINGE, Secretary.**

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SAN DIEGO COUNTY

The program of the January meeting of the San Diego County Medical Society was provided through the generosity of the Scripps Lecture Foundation, following a custom of the last five years. Dr. Lewellys F. Barker of Baltimore was the guest speaker. Clinics were held by Doctor Barker for the county society at the Naval Hospital, the County Hospital, and at the Scripps Memorial Hospital. On Saturday evening, January 9, the county society members were guests of Miss Ellen Scripps and Mr. J. C. Harper at dinner at the Casa de Manana, and following dinner the regular January meeting was held at the Woman's Club House in La Jolla. Doctor Barker presented a paper on "Obesity." The county society is deeply indebted to the Scripps Foundation and to Doctor Sherrill, director of the Scripps Metabolic Clinic for this annual January program.

The Board of Supervisors of San Diego County at their first meeting in January reestablished the existing administration at the County Hospital. Dr. C. E. Sisson was reappointed as superintendent and also given the title of business manager. The advisory board was continued without a change in personnel. Dr. Chester O. Tanner, president of the San Diego Medical Society and Dr. James D. Bobbitt are the representatives of the County Medical Society on the advisory board. The administration at the County Hospital received the full approval of the 1931 Grand Jury.

On Tuesday evening, January 19, Dr. Willis C. Campbell of Memphis was the guest speaker of the San Diego Academy of Medicine. His subject was "The Treatment of Affections of the Lumbosacral Region." The operations of sacro-iliac and sacro-lumbar fixation were depicted by unusually satisfactory moving-picture films.

The County Medical Society is broadcasting over KFSD every Wednesday morning at 10:15. The broadcasting is under the direction of the Committee on Public Policy and Legislation, with Dr. O. W. Weiskotten as chairman.

The February meeting was held in the Elks' Club. Dr. Loyal Davis of Northwestern University presented a paper on "The Effects of Various Diagnostic and Therapeutic Solutions Upon the Spinal Cord and Its Membranes."

L. C. KINNEY, Secretary.

SAN JOAQUIN COUNTY

The stated meeting of the San Joaquin County Medical Society was held Thursday evening at 8:30 o'clock, January 7, in the Medico-Dental clubrooms, 242 North Sutter Street, Stockton. The meeting was called to order by President George H. Sanderson.

A committee, consisting of Doctors Sutton, Gallegos and Sippy, was appointed to answer a questionnaire in regard to free clinics and the conduct of the County Hospital.

A membership committee was appointed as follows: Doctors Rohrbacher, Thompson, and Doughty.

The president read his opening address in which he urged better programs to stimulate greater attendance on the part of our members. He emphasized the importance of maintaining the ethical standards of our membership and the exclusion of irregulars from our hospitals.

Doctor Sanderson urged this county society to do all possible to keep out lay control of medical practice and the inroads of irregular practitioners; to make our society a place to foster better training and closer fellowship.

Doctors Holliger and Sheldon presented some x-ray films showing metastases from breast tumors into bony tissue in one case and into the lungs in a second case.

A paper on "Current Medical Problems in the American Tropics" was read by Dr. H. H. Anderson, associate professor in practice of tropical medicine at the University of California. This was a most interesting travelogue of a recent trip through Central America, illustrated with many moving pictures.

Barefoot natives suffering from infections with ascaris and hookworm were shown.

Patients living in the coffee belt at 2000 to 4000 feet elevation suffer from infection of the entacirca in the subcutaneous tissues of the neck and scalp. This peculiar disease is found nowhere else. The only treatment seems to be excision. In Costa Rica, among a population of 56,000 in San Jose, the *Entameba histolytica* is a very common infection. Emetin is the most valuable drug for control of this disease. Typhoid is endemic here; malaria of the subtertian type and black water fever are very prevalent.

In Panama, where malaria used to be common—800 cases per 100,000—it has been reduced to fifteen by mosquito control. In the interior, 20 per cent of the people suffer from malaria and one-third have amebae. In some of the outlying districts, where there is no control, 60 per cent have malaria. This is readily reduced to 5 per cent as soon as they adopt prophylactic measures and screen their houses.

The doctor introduced a new remedy for amebiasis which, to date, has proven more effective than any other drug. This is carbasone. The patient takes one capsule night and morning for ten days, then rests for ten days before repeating. Ninety per cent of the cases clear up in the first ten days. All other forms of treatment have required six months or more. Out of seventy-five cases treated this way at the University Hospital, all but four were cured.

There being no further business the meeting was adjourned and refreshments served.

C. A. BROADDUS, *Secretary*.



SANTA BARBARA COUNTY

The regular meeting of the Santa Barbara County Medical Society was held at St. Francis Hospital staff room on February 8, Doctor Koefod presiding. The secretary was unavoidably absent.

The minutes were deferred till the next meeting. On motion of Doctor Shelton it was voted that the next meeting be a dinner meeting held at a time when we may entertain and hear Doctor John, who will be

here over the week-end on his way to San Francisco; and perhaps it will be possible to have Doctor Alvarez at the same time.

The paper of the evening was given by Dr. Hans Lisser on "Endocrine Disturbances of the Adrenal Glands." He went into the history and advances in our knowledge of these organs, detailed many unusual and interesting cases, showing a large number of lantern slides of patients and pathological specimens. Small and large tumors of the adrenals were shown on the screen with the changes in facial and body characteristics before and after removal.

The paper was extensively discussed by Doctors Koehler, Shelton, Sansum, and Nuzum.

It was a most interesting meeting.

P. C. MEANS, *Secretary Pro Tem*.



SANTA CLARA COUNTY

The December meeting of the Santa Clara County Medical Society, the annual social meeting, was called to order in the auditorium of the San Jose Medico-Dental Building by President Fagerstrom and was well attended.

The application for membership of the following physicians were read and referred to the Admission Committee: Doctors Lee M. Watanabee of San Jose, C. E. Shepard of Stanford University, and Honora McCarty of Agnew.

The program of the evening was in charge of Dr. Stanley Kneeshaw, who presented the performers. The voices of several prominent contemporary politicians and men of affairs were heard in a radio broadcast. Dr. Samuel Staub also impersonated Dr. Charles Mayo. The wholesome humor of this part of the program was thoroughly enjoyed by all of the members. Several well rendered musical numbers were presented by Dr. Charles Richards and other musicians. Refreshments were then served. The remainder of the evening was spent in games of cards and other social diversion. A genuine spirit of good fellowship pervaded the meeting. Many expressed the wish that this annual custom might be repeated for many years to come.



The regular meeting of the Santa Clara County Society was called to order by President Fagerstrom in the auditorium of the Medico-Dental Building on the evening of January 20.

The applications for membership of the following physicians were read and referred to the Admission Committee: Doctors Dan Brodovsky of Santa Clara County Hospital, Paul T. Martin of San Jose, and R. Wesley Wright of Palo Alto.

Dr. Frank Rudisill Bealer, having been favorably recommended by the Admission Committee, was elected into the membership of the society.

The written resignation of Dr. A. Mausert was read.

A letter addressed to the Parent-Teacher Association concerning the matter of preschool examinations was proposed by Dr. Lucas Empey. The letter stated that the members of the Santa Clara County Medical Society could not coöperate in the matter of preschool examinations unless some entirely new system could be worked out which would overcome certain objections which make the present procedure practically worthless, as far as any benefit to the children is concerned. A motion by Doctor Durney that the secretary be instructed to send this letter to the Parent-Teacher Associations of Santa Clara County was unanimously carried.

Dr. Fred Ryan brought to the attention of the society the fact that a certain company was attempting to obtain a fee schedule below that now in force in industrial practice. Dr. Peter Jordon then moved that the following resolution be adopted by the society:

Resolved, That the industrial fee schedule now in force be observed by every member of the Santa Clara County Medical Association, and that each of the members present who does not register his dissent expresses himself as being in accord with and agreeing to abide by the fee schedule adopted by the committee on industrial practice of the California Medical Association with the insurance company, including the state fund; and be it further

Resolved, That all members of the Santa Clara County Medical Society are to be held bound by the adoption of the ethics applicable to industrial practice heretofore adopted by this society; and be it further

Resolved, That the secretary be instructed to inform all members of the Society not present at the meeting of this resolution. A standing vote on this resolution resulted in its adoption.

The following program on medical economics was presented:

Address—"Present Status of Medical Economics from the Viewpoint of the Medical Profession," by Dr. Daniel Crosby, Oakland.

The Remedy—"An Intrасociety Insurance Company," by Dr. John H. Shepard, San Jose.

Address—"Present-Day Medical Service as Viewed by the Layman and a Discussion of the Plan Proposed by Doctor Shepard," by Mr. Hartley Peart, San Francisco, general counsel of the California State Medical Association.

After a discussion in which several members participated, Dr. Edward Newell moved that a committee be appointed to draw up in writing a definite insurance plan for families with an annual income below \$2000 per year, along the lines suggested by Dr. John Shepard. The motion was carried and the following committee appointed: Doctors John H. Shepard (chairman), Enos P. Cook, S. B. Van Dalsem, Fred Ryan, and D. P. Fagerstrom.

LUCAS W. EMPEY, *Secretary*.



STANISLAUS COUNTY

The minutes of the regular meeting of the Stanislaus County Medical Society was held on February 12. Twenty-seven doctors were present. Dr. A. L. Van Meter and Dr. George H. Sanderson of Stockton and Dr. B. E. McDowell and Dr. Chester A. Moyle of Merced were visitors at the meeting.

Dr. E. R. McPheeters asked for an opinion on hospital advertising in magazines and local newspapers. It was moved, seconded and carried, that no member of this society extend to any newspaper or magazine any advertising unless it is endorsed by the medical society and honored by the secretary.

It was moved, seconded and carried, that in cases where it be advisable to publish any card or notice by any member of the medical society it shall be submitted to the secretary, and if there is any doubt it be submitted to the censors of the society as a whole for approval.

Case reports were presented by the following doctors:

Donald L. Robertson—Diverticulum of the Stomach.

F. R. DeLappe—Diverticulum of the Duodenal-Jejunal Junction.

A. L. Van Meter of Stockton—A Fracture of the Humerus Treated by Aeroplane Splint.

George H. Sanderson of Stockton—Cartilaginous Tumor of the Thumb.

J. K. Ransom—An Unusual Case of Pernicious Anemia.

E. F. Hagedorn—A review of six cases of fractured hip, the last two of which were treated by the Carl P. Jones splint.

Hans Hartman—Statistical review of one hundred and sixty-six cases of appendectomy.

DONALD L. ROBERTSON, *Secretary*.

TULARE COUNTY

The regular monthly meeting of the Tulare County Medical Society was held in Visalia on January 27.

Dinner was served at 7 p. m. The meeting was called to order at 8 p. m. by H. G. Campbell, president.

The application of Dr. Philip S. Barber of Porterville for membership in the society was favorably acted upon.

Election of officers for the ensuing year was held and the following members were elected to fill the respective offices: S. S. Ginsburg of Visalia, president; E. C. Bond of Hanford, vice-president; Karl F. Weiss of Visalia, secretary-treasurer.

The following members were present: Doctors Campbell, Seligman, Annie Bond, E. C. Bond, Hill, Hicks, Guido, Kohn, Betts, Preston, Fowler, Lipson, Banks, Zumwalt, Weiss, and Ginsburg. Guests: Dr. S. Suckerman, Chicago, Illinois; Mrs. W. Haight, Visalia; Mr. Stanford, Visalia; and Doctor Telefer.

The speaker of the evening, Dr. Platt W. Covington, western representative of the Rockefeller Foundation, spoke on "Public Health." The address was warmly received by those present, followed by a resolution to render all possible support to the new plan of public health administration.

KARL F. WEISS, *Secretary*.

CHANGES IN MEMBERSHIP

New Members

Alameda—Thomas O. Grieg, Charles K. Small, Francis X. Strong.

Lassen-Plumas County—B. H. Wardrip.

Los Angeles County—

David N. Alcon	Milton Kerlan
William C. Boeck	Harold K. Marshall
Jesse L. Brockow	Philip Paul B. McElhinney
William M. Byers	Albert Julius Meyer
Lyle G. Craig	Ralph Floyd Miller
John B. Doyle	Herbert S. Mooney
H. Manning Elliott	Paul H. Smitgen
George J. Hartman	Carl Hubert Talmage
W. C. Hixson, Jr.	Harry Wellington Vance
John W. Hopkins	Robert D. Wilson
Henry Leon Jones	

Monterey County—Marcel R. Bedri, Clinton Wilson.

Placer County—David M. Kindopp.

Sacramento County—Thomas William Kelsey, James F. McAnally.

San Francisco County—

Alfred Ringstrom Agmar	Alfred Henry Heald
Charles W. Barnett	Joseph James Raffetto
Hildegard Henderson	William A. Reilly
Gertrude Flint Jones	Archie Marvin Roberts
Gerald George Cleary	William Lister Rogers
Thomas J. Cox	George William Tippet
Robert Douglas Dunn	

Santa Barbara County—Jules Bertero, A. M. Beekler, John Howard Childrey, Alfred Edward Koehler, Charles August Preuss.

Santa Clara County—Paul Todd Martin.

Santa Cruz County—John M. Dunphy, M. McPherson.

Tchama County—John J. Fitzgerald, Edward S. Moulton.

Tuolumne County—Robert Lucian Hamilton, Jens P. Jensen.

Yolo-Colusa-Glenn County—Charles S. Roller, Ney M. Salter.

Transfers

Christopher Leggo, from Solano to Contra Costa County.

Sverre Oftedal, from Los Angeles County to North Dakota.

James T. Parker, from San Diego to Alameda County.

Lawrence K. Zimmer, from Los Angeles County to Kansas.

Resignations

Elmer M. Claiborne from Los Angeles County.

In Memoriam

Salisbury, Samuel S. Died at Los Angeles, February 1, 1932. Graduate of Hahnemann Medical College and Hospital of Philadelphia, Pennsylvania, 1873. Licensed in California, 1887. Doctor Salisbury was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

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Sampson, Jacob Henry. Died at San Francisco, February 9, 1932, age 66 years. Graduate of University of Texas School of Medicine, Galveston, 1894. Licensed in California, 1908. Doctor Sampson was a member of the Alameda County Medical Association, the California Medical Association, and the American Medical Association.

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Tillmanns, Ernest Gustav Nathaniel. Died at Los Angeles, January 25, 1932, age 51 years. Graduate of Rush Medical College, Chicago, 1914. Licensed in California, 1916. Doctor Tillmanns was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

NEVADA STATE MEDICAL ASSOCIATION

A. C. OLMSTED, Wells.....President
O. HOVENDEN, McGill.....President-Elect
J. H. HASTINGS, Pioche.....First Vice-President
E. E. HAMER, Carson City.....Second Vice-President
HORACE J. BROWN, Reno.....Secretary

COMPONENT COUNTY SOCIETIES

WASHOE COUNTY

The Washoe County Medical Society met in the Veterans' Hall, State Building, on the evening of February 8, Dr. John J. Sullivan presiding.

The speaker of the evening, Mr. Sullivan of Carson City, chairman of the Nevada Industrial Commission, was to be the speaker of the evening, but owing to acute illness he sent his regrets for not being present.

The application of Dr. J. P. Tuttle of Salt Lake County, accompanied by a letter from the secretary of the Salt Lake County Medical Society, was read and the applicant voted into the society.

A series of resolutions on sundry medical society affairs were offered by Doctor Servoss, chairman of the Board of Censors, and signed by Doctors Arthur Landers and Fleet Harrison, other members of the Board of Censors. The resolutions were read and ordered printed, and a copy of each sent to members. They were held over until the next regular meeting for a second reading, to be acted upon by the society.

There was considerable comment by various members with reference to the resolutions as read, but action on same was deferred until next meeting.

The following members were present: Doctors Sullivan, Morrison, Muller, Landers, J. L. Robinson, Smith, Dwight Hood, Williams, Egan, Harrison, Fuller, Tuttle, Hund, Maclean, Stadtherr, Servoss, DaCosta, Lehnars, W. H. Hood, Paradis, and Bath. Visitors were: Doctors McPherson and Davis Westwood.

THOMAS W. BATH, *Secretary*.

UTAH STATE MEDICAL ASSOCIATION

R. A. PEARSE, Brigham City.....President
F. M. McHUGH, Salt Lake City.....President-Elect
L. R. COWANS, Salt Lake City.....Secretary
J. U. GIESY, Kearns Building, Salt Lake City
.....Associate Editor for Utah

OFFICIAL NOTICE

Beginning Tuesday, February 16, the Utah State Medical Association again goes on the air. Short five-minute talks will be given over station KDYL, Salt Lake, Tuesday and Thursday mornings at 10:30 o'clock on health subjects. It is hoped that these brief considerations of matters affecting the public health may be the means of exciting interest and better understanding in the public mind of the objects of modern medicine. Listen in.

COMPONENT COUNTY SOCIETIES

BOX ELDER COUNTY

The meeting of the Box Elder County Medical Society, held in Brigham City October 15, 1931, was the annual election meeting, and the following officers were elected: E. H. White, president; T. E. Betenson, secretary; Dr. Merrill, vice-president; A. D. Cooley, delegate; O. D. Luke, alternate; R. A. Pearse and E. A. Weymuller, censors.

It was decided at the meeting to attend outside meetings and bring in special speakers for papers when possible.

The November meeting was postponed to meet with the Weber County Society.

Doctor Cooley was appointed to act as Public Relations man and Doctor Pearse was appointed to act on the Legislative Committee.

* * *

The December meeting of the Box Elder County Medical Society was held in Tremonton on December 16.

Dr. Eugene Smith of Ogden gave a very instructive paper on "Intracranial Birth Injuries." Doctors Cooley, Pearse, White, Merrill, and Betenson were present. Dr. Jay M. Shaffer was also present and presented a membership card from the Salt Lake County Medical Society and asked admittance into the Box Elder County Medical Society. The matter was left with the censors to get a report from the Salt Lake County Society.

T. E. BETENSON, *Secretary*.

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SALT LAKE COUNTY

A regular meeting of the Salt Lake County Medical Society was held Monday evening, January 11, at the Holy Cross Hospital. The meeting was called to order by President Neher at 8:05 o'clock. The minutes of the preceding meeting were read and accepted.

President Neher then turned the meeting over to the Holy Cross Hospital for a clinical program.

Dr. J. P. Kerby presented a case of Osgood's disease of the knee.

Dr. W. A. Pettit presented a case of femoral hernia the sac of which contained a subacutely inflamed appendix.

Dr. L. N. Ossman presented a case of giant cell tumor of the femur.

Dr. Sol Kahn and Dr. J. P. Kerby presented a case of abdominal adhesions.

Dr. John Sugden presented a case of ulnar nerve paralysis.

President Neher then resumed the chair.

Dr. W. A. Pettit gave an interesting and detailed report on the activities and accomplishments of the

City Board of Health. He described the allocation of funds to the different activities of the board and showed that the division of food inspection received more in licenses than its expenses. He commented on the recent demands for reduced expenditures by the board and expressed a fear that this would endanger public health. This report was discussed by Drs. E. F. Root, J. P. Kerby, and L. J. Paul. President Neher announced the appointment of a Committee on Public Health and stated that the coöperation of this committee had been offered to the City Commission.

‘ ‘ ‘

On Monday evening, January 25, a meeting of the Salt Lake County Medical Society was held at the Newhouse Hotel. The meeting was called to order at 8:05 o'clock. Forty-seven members and two guests were present. President Neher then asked Dr. L. L. Daines, the acting dean of the Medical School, to take the chair.

Dr. C. B. Freudenberger presented a paper on "The Effects of a Deficiency of Recently Discovered Vitamins."

Dr. Seward E. Owen presented a paper on "Viscerocardiac Reflexes."

President Neher asked the vice-president, Dr. C. F. Pinkerton, to take the chair while he presented an important discussion of the problems in medical economics now facing the public and the medical profession. Referring to complaints of the public on the high cost of medical care, he expressed a fear that such feeling might lead to forms of social medicine unsatisfactory both to the public and the profession. He urged the profession to take leadership in studying this problem impartially from both points of view. He suggested the appointment of an advisory committee to the president and with the help of this committee the appointment of appropriate committees to study the whole problem of medical care. Drs. J. P. Kerby, W. R. Tyndale, and A. C. Callister discussed and commended the president's statement. Dr. W. R. Tyndale moved that the appointment of the committees as suggested be made. The motion was seconded by Dr. R. T. Woolsey and passed without dissent.

Dr. J. Z. Brown reported that the Council of the State Association had not acceded to the request of this society that an increase of dues be postponed. Dr. A. C. Callister moved that the county society instruct its delegates to call a meeting of the House of Delegates and that in such meeting our delegates act to rescind the action of the Council. This motion was seconded by Dr. D. E. Smith. After discussion by Doctors Rich, Cowan, Raly, Kahn, E. F. Root, Cornwall, and Critchlow, the motion was lost (16 to 15). It was moved by Dr. F. F. Hatch, and seconded by Dr. Sol Kahn that the secretary be instructed to pay no additional dues to the State Association until the House of Delegates meets and then only if so ordered. Dr. J. Z. Brown moved that this be laid on the table for two weeks. The latter motion was seconded by Dr. W. R. Tyndale and passed.

Dr. J. P. Kerby moved the following resolution:

Whereas, The members of this society donate free services annually to the General Hospital of about \$250,000, and do this gladly, for the sake of the poor who are unable to pay for a private physician, this society considers it only just that in cases where a patient in that hospital is able to pay the hospital he shall also pay the attending physician. This society considers it unjust to attempt to divert to the county the pay due such physician, and would consider it a breach of faith with those physicians who donate their services free to that hospital.

This was seconded by A. C. Callister and passed.

Dr. M. M. Critchlow moved the following resolution.

Whereas, Dr. Augustus C. Behle, past president of the Salt Lake County Medical Society and the Utah State Medical Association, has been continu-

ously an active member of this society for thirty-seven years; and

Whereas, Because of illness he has been compelled to discontinue permanently the practice of medicine at the age of sixty-one; therefore be it

Resolved, That, in consideration of past services, Doctor Behle be made a life member of the society without payment of dues, effective January 1, 1932; and be it further

Resolved, That he be presented with a copy of this resolution and the expression of appreciation of this society.

This was seconded by Dr. J. Z. Brown and passed.

It was moved by Dr. R. T. Woolsey that an assessment of \$1.50 each be levied on the members having a front-page telephone listing and that this be paid by April 1. This was seconded by Dr. A. C. Callister and passed.

Dr. Richard Middleton was elected to membership.

The application of Doctor McLaughlin for membership was read and referred to the board of censors.

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A regular meeting of the Salt Lake County Medical Society was held Monday evening, February 8, at the Salt Lake General Hospital. The meeting was called to order by President Neher at 8:10 o'clock. Forty-five members and ten guests were present.

President Neher then turned the meeting over to the Salt Lake General Hospital for a clinical program.

Earl F. Wight presented a case of "Acromegaly."

J. Z. Brown, Jr., presented a case of "Pernicious Vomiting of Pregnancy" and one on "Preeclamptic Toxemia."

R. Middleton presented cases of "Urethral Calculi" and "Spina Bifida Occulta with Urinary Incontinence."

R. J. Alexander presented a case of "Anomaly of Colon."

R. Tandowsky discussed "Pneumonia Treatment."

L. W. Snow presented a case of "Spondylolisthesis."

Dr. R. F. McLaughlin was elected to membership of the Salt Lake County Medical Society.

L. E. VIKO, *Secretary*.

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WEBER COUNTY

The regular meeting of the Weber County Medical Society was held January 21.

Committees for service during the coming year were announced:

Programs and Scientific Work—Doctors S. W. Badcon, Vernon L. Ward, and William M. McKay.

Public Health and Legislation—Doctors Ezra Rich, F. K. Bartlett, and E. R. Dumke.

Dr. Joseph R. Morrell proposed the erection of a medical arts building similar to the one in Salt Lake, which was then discussed and a committee consisting of Doctors Joseph R. Morrell, R. L. Draper, and G. M. Fister was appointed by President Badcon, to meet with a similar committee from the dental society to consider the matter and report in the near future.

Dr. G. Gill Richards of Salt Lake City, the guest speaker of the evening, was then introduced. He gave a very interesting and instructive discussion on the medical treatment of gastric ulcer.

WILLIAM M. MCKAY, *Secretary*.

The Chiropractic Initiative.—Although the law requires the signatures of but twenty thousand registered voters on a petition of initiative, the chiropractors recently filed one with the office of the Secretary of State of Massachusetts with sixty thousand signatures.—*New England Journal of Medicine*, December 31, 1931.

MISCELLANY

Under this department are ordinarily grouped: News; Medical Economics; Correspondence; Twenty-five Years Ago column; Department of Public Health; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the twentieth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

NEWS

Coming Meetings—

American Medical Association, New Orleans, Louisiana, May 9-13, 1932, Olin West, M. D., 535 North Dearborn Street, Chicago, Illinois, Secretary.

California Medical Association, Hotel Huntington, Pasadena, May 2-5, 1932, Emma W. Pope, M. D., Room 2004, 450 Sutter Street, San Francisco, Secretary.

American College of Physicians, San Francisco, California, April 4-8, 1932, William J. Kerr, University of California Medical School, Fourth and Parnassus avenues, San Francisco, General Chairman.

Pacific Northwest Medical Association, Spokane, Washington, June 27-29, 1932, C. W. Countryman, 280 Paulsen Medical-Dental Building, Spokane, Washington.

Income Tax Reports Are Due.—This March number of your JOURNAL will be delivered to members of the California Medical Association a few days before federal income tax reports must be filed, the last day for such filing being March 15.

In CALIFORNIA AND WESTERN MEDICINE of February, 1931 (page 138), were reprinted income tax regulations with particular reference to income and expenses of physicians. The February 13, 1932, *Journal of the American Medical Association* (page 574), brings these regulations up to date.

For members of the profession who may be in doubt on classification of certain income, expenses and losses, the above articles may be of service, and attention is accordingly called thereto.

Medical Supervision of Tenth Olympic Games, Los Angeles, 1932.—The preliminary organization plans for the medical supervision of the international Olympic Games which will be held in Los Angeles in July, 1932, has been submitted to the central Olympic committee by Sven Lokrantz, M. D., medical director of the games. Doctor Lokrantz is chairman of the Executive Medical Advisory Committee, the other members of which are Doctors Harry H. Wilson, E. C. Moore, George H. Kress, and C. Morley Sellery. The broad scope of the medical arrangements is indicated from the following paragraph on personnel, taken from Doctor Lokrantz' report:

Personnel:

Sven Lokrantz, M. D., medical director of the games.
C. Morley Sellery, M. D., assistant.
Physicians for Olympic Village Hospital during residence of athletes (approximately twenty-five days).
Physicians for stadiums, two hundred and sixty-two shifts.
Woman physician for women athletes during residence of athletes (approximately twenty-five days).
Two nurses for women athletes.
Five volunteer nurses.
Two nurses for Olympic Village Hospital.
One clerk for Olympic Village Hospital.
Twelve leading physicians, constituting a Medical Advisory Board; three of these physicians, with the director and assistant director, constituting the Executive Medical Advisory Board.
Twelve consultant surgeons.
Forty volunteer medical advisers—a physician for every nation, preferably a physician of the same nationality as the competing group.
Research board of ten volunteer physicians to examine such athletes as have signified their willingness to be examined in connection with certain special events which will be decided on later by the Olympic Committee.

American Board of Obstetrics and Gynecology.—The next written examination for applicants for certificate from the American Board of Obstetrics and

Gynecology will be held in some six cities (San Francisco included) on Saturday, March 26, at 2 p. m., under the direction of the examiners and assistant examiners of the board.

The examination will consist of questions on obstetrics and gynecology; is for Group B candidates and must be accompanied by fifty case records. Group A candidates are not required to take this examination nor to provide case records, and notice of the next oral and clinical examination for all applicants will be published at a subsequent date. For further information and details apply to the secretary, Dr. Paul Titus, 1015 Highland Building, Pittsburgh, Pennsylvania.

Bulletin of the Southern Pacific Hospital.—A newly established medical publication in California is the *Bulletin of the Southern Pacific Hospital*. Volume 1, number 1, is a well arranged and interesting journal of some fifty pages. The opening article is an historical sketch of the Southern Pacific Hospital Department, with special emphasis on the splendid new Harkness addition to the Southern Pacific General Hospital at San Francisco, funds for which were given by Edward H. Harkness of the Southern Pacific directorate. This addition was dedicated on November 4, 1931, the dedication address being made by Dr. Walter B. Coffey, chief surgeon of the Southern Pacific Company. The staff of the hospital, as printed on the initial page, contains the names of some of San Francisco's best known physicians and surgeons. Members of the profession who desire copies of this new publication should send requests to Southern Pacific Hospital Department, San Francisco.

Meeting of Pacific Northwest Medical Association. The meeting of the Pacific Northwest Medical Association will be held in Spokane, Washington, June 27, 28, and 29, 1932. The speakers will be: Henry C. Bazett, Samuel R. Cunningham, H. Gideon Wells, William J. Kerr, Phillip H. Kreuscher, Charles B. Wright, Temple S. Fay, Henry E. Michelson, and Richard T. Atkins. The meetings will be held at Davenport Hotel, Spokane. Committee of Arrangements—Drs. F. G. Sprowl and C. W. Countryman.

The Semiannual Alumni Day of the University of California Medical School will be held at the University of California Hospital on Tuesday, March 22, 1932. The program is as follows:

MORNING SESSION

8:30 to 11:30—Operative clinics:
Neurosurgery and general surgery—Dr. Howard C. Naffziger and staff.
Gynecology—Drs. Frank W. Lynch and Alice F. Maxwell.
Urology—Drs. Frank Hinman, Sidney Olsen, and Clark M. Johnson.
Otorhinolaryngology—Dr. Wallace B. Smith.
Ophthalmology—Dr. Joseph L. McCool.
Orthopedic Surgery—Dr. LeRoy C. Abbott and staff.
10:00 to 12 noon—Pediatric ward rounds—H. Ward.
Dr. Francis S. Smyth and staff.
10:00 to 11:30—Medical staff conference, Toland Hall.
Demonstration of patients, with discussion opened by Drs. W. J. Kerr, Ernest H. Falconer, Alfred C. Reed, Sidney J. Shipman, H. Clare Shephardson, the staff, and Dr. J. C. Meakins (professor of medicine, McGill University faculty of medicine).
Pathology—Dr. Charles L. Connor.
X-ray—Drs. Howard E. Ruggles and Robert S. Stone.

AFTERNOON SESSION—TOLAND HALL.

- 2:00—Allergic Migraine and Indigestion—Dr. Albert H. Rowe.
 2:20—Bacteriophage Therapy: Its Indications and Limitations—Dr. A. P. Krueger.
 2:40—The Developmental Pathology of Congenital Dislocation of the Hip Joint—Dr. John B. Saunders.
 3:00—Intolerance to Carbohydrate Associated with Pathological Intestinal Flora—Dr. T. L. Althausen.
 3:20—Monocytic Leukemia—Dr. James F. Rinehart.
 3:40—Cinobufagin in the Treatment of Certain Types of Heart Disease—Dr. Dudley W. Bennett.
 4:00—Annual Alpha Omega Alpha Lecture: Topic to be announced later—Dr. J. C. Meakins.

University of California 1932 Lectures.—J. C. Meakins, M. D., F. R. C. P. E., F. R. S. E., F. R. S. C., C. A. M. C., professor of medicine and director of the department of medicine, McGill University; director of University Clinic and physician-in-chief of Royal Victoria Hospital, Montreal, Canada, will be at the University of California Medical School as University lecturer from March 11, to April 2, 1932.

Doctor Meakins was born in Hamilton, Canada, May 16, 1882. He was educated in Montreal, receiving his M. D. degree from McGill University, College of Medicine, where he held numerous positions. He also was resident pathologist at the Presbyterian University, New York, 1907-1910, and Christison professor of therapeutics, University of Edinburgh, and physician to the Royal Infirmary, Edinburgh, 1919-1924.

The University Lectureship was established at the Medical School in 1930. The first University lecturer was Dr. Llewellys Barker of Baltimore, Maryland, and the second was Dr. Herman Adler. Each year a distinguished physician is invited to fill the post, which requires that the incumbent conducts clinics and demonstrations at the Medical School during his month's incumbency. Members of the medical profession are welcome to attend various of Professor Meakins' conferences, and the University hopes that many California physicians will avail themselves of the opportunity to follow the teaching of this great clinician and investigator.

SCHEDULE FOR DR. J. C. MEAKINS UNIVERSITY OF CALIFORNIA MEDICAL SCHOOL 1932 LECTURES

- March 14 (Monday), 12:00-1:00 p. m.—Demonstration clinic (fourth-year class), Toland Hall, University of California Hospital.
 March 15 (Tuesday), 8:15 p. m.—Address—San Francisco County Medical Society, 2180 Washington Street.
 March 16 (Wednesday), 9:00-11:00 a. m.—Medical staff conference, Toland Hall.
 March 19 (Saturday), 11:00-12:00 noon—Demonstration clinic (fourth-year class), Medical Amphitheater, San Francisco Hospital.
 March 21 (Monday), 12:00-1:00 p. m.—Demonstration clinic (fourth-year class), Toland Hall.
 8:00 p. m.—Demonstration clinic, Alameda County Medical Society.
 March 22 (Tuesday), 10:00-11:30 a. m.—Discussions: University of California Medical School Alumni Day program, Toland Hall.
 March 26 (Saturday), 11:00-12:00 noon—Demonstration clinic (third-year class), Medical Amphitheater, San Francisco Hospital.
 March 28 (Monday), 12:00-1:00 p. m.—Demonstration clinic (fourth-year class), Toland Hall.
 March 30 (Wednesday), 9:00-11:00 a. m.—Medical staff conference, Toland Hall.
 March 31 (Thursday), 3:30 p. m.—Lecture to fourth-year students, Stanford University Medical School.
 April 2 (Saturday), 11:00-12:00 noon—Demonstration clinic (third-year class), Medical Amphitheater, San Francisco Hospital.
 April 4—(Monday), 12:00-1:00 p. m.—Demonstration clinic (fourth-year class), Toland Hall.
 April 7 (Thursday), 10:00-11:00 a. m.—Symposium: Ten Years' Experience in the Use of Insulin.

MEDICAL AND DENTAL OFFICERS FORM LEGION MEDICAL POST

Medical Post No. 441, Los Angeles, is now organized and operating as an active post of the American Legion. This post is organized in memory of the men and women of our profession who made the supreme sacrifice during the World War. It has been decided that the membership of the Medical Post shall be composed of medical and dental officers who served in the Army, Navy or Marine Corps during the World War, and otherwise eligible under the provisions of Article IV of the National Constitution of the American Legion.

The elected officers of Medical Post are: John F. Martin, M. D., commander; Samuel G. Bay, M. D., first vice-commander; M. H. Topping, M. D., second vice-commander; R. L. Sturges, M. D., adjutant; Edward W. Wahl, M. D., sergeant-at-arms; Jenner P. Chance, M. D., historian, and J. A. Rene, M. D., chaplain.

Medical Post No. 441, American Legion, is ready to serve all veteran medical officers of California who served during the World War and who have manifested disabilities since their separation from military or naval service, but through ignorance of rights, neglect, financial independence, or self-pride have failed to file a claim for compensation or disability allowance with the United States Veterans Administration.

The World War Act, as amended, provides for the direct service connection of disabilities incurred in or aggravated by military or naval service. It also provides for the service connection of disabilities under the benefit of presumption for chronic constitutional diseases manifest within one year from date of separation from service and for active tuberculosis, neuropsychiatric, and *Ameba histolytica* disabilities manifest to a degree of ten per cent or more prior to January 1, 1925.

The Congressional Act of July 3, 1930, provides for disability allowance for definitely diagnosed disabilities of a permanent nature in classes of 25 per cent, 50 per cent, 75 per cent and permanent and total degree, the respective payments being \$12, \$18, \$24 and \$40 a month. It is necessary that the claimant did not receive a dishonorable discharge from service, and that his disabilities are not the result of misconduct.

It should be sound procedure for any disabled veteran medical officer to take advantage of the provision of the law and file a claim with the Veterans Administration so that his rights may be determined. A veteran entitled to financial benefit from the government can at least invest the money for the protection of his family, and provide for his widow's possible pension rights.

Medical Post No. 441 will gladly aid any veteran medical officer to file a claim for compensation or disability allowance. Communicate with the commander and proper application blanks will be sent.

The commander of Medical Post No. 441 is John F. Martin, M. D., 1816 South Figueroa Street, Los Angeles.

CORRESPONDENCE

Subject of Following Letter: Request of National Committee on Costs of Medical Care for Copies of September California and Western Medicine.

To the Editor—We should like to distribute to the members of the Committee on the Costs of Medical Care and to a few other especially interested persons reprints of "The Medical Economics Symposium" which appeared in CALIFORNIA AND WESTERN MEDICINE in September, 1931. For this purpose we need seventy-five copies.

Do you have such reprints available for distribution?

Sincerely yours,

ALDEN B. MILLS,
Executive Secretary.

910 Seventeenth Street, Washington, D. C.

Editor's Note.—This request for the interesting "Medical Economics" symposium unfortunately reached California and Western Medicine after the edition had been exhausted. The request is here reprinted because it is a compliment to the official journal of the California Medical Association and its contributors.

Subject of Following Letter: New San Francisco Health Regulation to Aid in Prevention of Food Poisoning.

To the Editor—I am enclosing regulation passed by the Board of Health at my request and because of the attached investigations by my associates and myself.* You will note that two of these outbreaks were in hospitals, and we deemed the matter so important that the regulation is necessary. Needless to say it will be absolutely enforced.

Sincerely,

J. C. GEIGER, M. D.,
Health Officer.

SAN FRANCISCO HEALTH DEPARTMENT REGULATION

"It shall be unlawful for any person, firm, association, or corporation within the limits of the city and county of San Francisco to manufacture, import, offer for sale, to sell or distribute, or to use, any living culture or preparation of bacteria, or of any other group of microorganisms potentially dangerous to man, for the purpose of destroying rats, other rodents, or vermin."

Subject of Following Letter: Memorandum From Director of Public Health of San Francisco Concerning an Executive Order Prohibiting Sale of a Certain Depilatory.

To the Editor—For your information I am sending you herewith copy of a communication sent to the *Journal of the American Medical Association* relative to a depilatory named Koremlu.

Sincerely,

J. C. GEIGER, M. D.,
Director.

The item is as follows:

"As a result of a dinner with a number of the leading dermatologists practicing in San Francisco, and the editorial in the *Journal of the American Medical Association* with reference to Koremlu, a depilatory containing thallium acetate, may I state that its sale was forbidden in

* Editor's Note.—The enclosure was a copy of Reprint No. 1489 from the Federal Public Health Reports (for sale by the Superintendent of Documents, Washington, D. C., at five cents per copy), having the caption: Three Outbreaks of Food Poisoning Apparently Due to B. Enteritidis, B. Paratyphosus B (Aërtrycke Type), and B. Paratyphosus A, Respectively.

San Francisco by an executive order of the Director of Public Health. Very few protests were made, one in particular being made by the representative of the firm who was at the time present in San Francisco. Despite his vigorous protests, the order remains as originally issued."

Subject of Following Letter: Comments on Doctor Adelstein's Article in February California and Western Medicine, Page 121.

To the Editor—The department of CALIFORNIA AND WESTERN MEDICINE entitled "Medicine Today" has often proved of interest. The contraction of related reviews of various books and articles with an editorial comment presents some difficulty; when well done by a man of sufficient experience to discuss editorially the subject-matter, the item is of great value.

In the article entitled "Physiologic Limitations of Surgery of the Sympathetic Nervous System" by Leo J. Adelstein of Los Angeles, the undisputed fact of smooth muscle relaxation, both in visceral conditions such as Hirschsprung's disease or of vasospasm in certain vascular affections, is clearly pointed out.

Workers, such as Royle, Von Lackum, and Stewart, of broad and intimate experience with cases of spastic paralysis, dating from months and years before as well as after various operations, have repeatedly demonstrated the increased surface temperature of the hands and feet following sympathectomy with a variable improvement in the incoördination defect. It is curious that the most renowned physiologist of our times states so positively that sympathectomy is without physiologic justification apparently because Royle's hypothesis as to the explanation for the improvement has been disproved. It seems obvious that no difference as to the why and wherefore should be permitted to obscure observable phenomena. It is a simple physiologic fact that our muscles do not work as well when chilled as when thoroughly warm. Two years ago Doctor Stewart advanced the suggestion that the improvement in circulation following sympathectomy was the basis of the clinical improvement, easily observed in many cases if the examiner has an intimate knowledge of what the patient can do before as well as after operation.

The article, then, unfortunately denies the existence of phenomena which have been observed in many hundreds of patients. And this by men who have had extremely little clinical experience in the condition, as far as knowing the patient before and after operation.

It is to be hoped that difference of opinion as to the theoretical explanation of phenomena will not indefinitely obscure the importance of adequate observation as to the presence or absence of such phenomena.

Yours very truly,

VERNON P. THOMPSON.

Subject of Following Letter: Suggestion that Pacific Coast Physicians Who Are Interested Form a Medical Art Club.

To the Editor—On communicating with six medical art clubs of the East I find that many medical men on the Pacific Coast are sending their paintings, etchings, and sculpture to various annual exhibits of these various art clubs.

Dr. E. B. Krumbhaar of the University of Pennsylvania, in discussing this fact, very wisely suggested: "I should think that it would be so expensive for your doctors on the Pacific Coast to pay for insurance and transportation of your works of art back here to our eastern cities that it would be better and more interesting for you to organize a similar club and exhibit in California."

Now there are some fifty doctors, including Washington, Oregon, California, Utah, Colorado, and Arizona, who devote their spare time to one of these art hobbies and many of these medical artists are really doing very meritorious work.

It seems to me, sir, that our climate out here and the settings over this whole coast area lead themselves more to art hobbies than anything we see in the East. The proof of this is the notable art colonies on this coast, and the products of their labors are world-famous in many instances.

Thus it seems to me that Doctor Krumbhaar's suggestion is well taken that we can organize a medical art association here patterned after the famous one of which Dr. Louis C. Schroeder of New York City is the head (his office is 50 East Seventy-second Street) and have, at least, yearly exhibits in one of our well-known art galleries.

In order to bring the idea of such an organization to the attention of the medical men of this coast, I wish you could either publish this letter, or better yet, make excerpts from it so that any professional men out here who may be interested could get in touch with me so we may get together for a preliminary discussion of this matter.

Hoping I have made the matter clear to you and that in the next issue of CALIFORNIA AND WESTERN MEDICINE you may get it before the medical men at large, I am

Respectfully yours,

F. H. REDEWILL, M.D.,

1162-1168 Flood Building, San Francisco.
Johns Hopkins, 1906.

TWENTY-FIVE YEARS AGO*

EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. V, No. 3, March 1907

From some editorial notes:

Society Work.—Is it worth while to be alive, or might one just as well be dead? "To be or not to be, that is the question." If one is going to live, why not live fully and helpfully and die with the knowledge that the world is at least no worse off for our having cumbered it for a brief space. There are so many things to be done, so much work waiting to one's hand, that it seems incredible that there can be any who may go through the world and live their lives without appreciating it. And for us, as physicians, there is perhaps more work than for others, who understand less well, all that needs to be done. . . .

. . . Our inertia, our apathy and our failure to do our duty by the community are responsible for many things. Often the good work that a few men might do in a county is hindered or prevented by the petty jealousy of two or three men who will not do anything toward making an active county society themselves, nor will they permit others to do what they should and would like to do. Is there no way of waking up those who are asleep? Is there no way of galvanizing a little life into some of our profession who are really two-thirds dead and don't know it?

Possible Strength.—None knows so well as the physician that it is not only wrong but dangerous to allow public health institutions to be political playthings. The average competent and reputable physician will not devote his time to "making good" with local politicians, nor to being a "good fellow" and a "glad-hand artist" with the voters of his community merely to gain support that will eventually mean some political office. He is, as a rule, too busy with his study or his practice and he does not seem to realize that political work need not necessarily be done in the "glad hand" style. He thinks it must be so

* This column strives to mirror the work and aims of colleagues who bore the brunt of state society work some twenty-five years ago. It is hoped that such presentation will be of interest to both old and recent members.

done, and so he wraps the ten talents of his influence in the covering of his self-esteem and buries them; he allows his potential strength to lie dormant. . . .

Educational Campaign.—How are we going to bring about any betterment of this condition of things? By helping to take the control of our State, which is the legislature, out of the hands of cheap and unworthy politicians. And how can we help in doing that? By showing the better element in our various communities the actual and definite harm that is resulting from political control of the sick, and the tremendous expense to the State of lack of proper sanitary control. . . .

Support the Association.—Doubtless but few of us realize as yet the tremendously valuable work which is being done for the medical profession of this country by the American Medical Association through its Council on Pharmacy and Chemistry. . . .

From an article on "Remarks on the Present Status of Intranasal Surgery" by Louis C. Deane, M. D., San Francisco.

In the past six years such rapid strides have been made in intranasal surgery that those who have not kept in active touch with the workers in this field and with the literature, can hardly conceive the splendid progress that has been made and of the remarkable achievements of such men as Killian, Hajek, Jansen, Luc, and Grünwald. . . .

From an article on "Diagnosis and Treatment of Ectopic Pregnancy" by George B. Somers, M. D.

One of the most interesting conditions met with in the diseases of women is ectopic pregnancy. It fixes the attention because of its insidious nature, the obscurity of its symptoms, and because it often ends fatally even before the true situation is realized. . . .

From an article on "European Clinics" by Edward C. Sewall, M. D., San Francisco.

On my recent visit to the clinics in Europe I saw many things that interested me. Many of them I have already found of great advantage in my work and I present them with the hope that some of the points may possibly be of interest to you. . . .

From an article on "Reports of Focal Operations in Hip-Joint Tuberculosis—A Discussion Finished" by Harry M. Sherman, A. M., M. D., San Francisco.

When Doctor Huntington read his paper before the society, describing and discussing his three operations of tunneling the neck of the femur to reach a tuberculous focus in the femoral neck or head, all of which had been successful, I was invited to open the discussion. . . .

From an article on "Demonstration of a Patient Showing the Effect of the X-Ray on the Epithelial Structures of the Skin" by Douglass W. Montgomery, M. D., San Francisco.

. . . After the x-raying of four years ago, the hair fell out of the scalp adjacent to the right ear, and also out of the beard of the right side of the face. The hair of the scalp has partially grown in, but that of the right side of the face has not returned; not even as downy hair. The bald skin is not atrophic, and looks much better, from a cosmetic point of view, than the skin of the rest of the face. . . .

DEPARTMENT OF PUBLIC HEALTH

By GILES S. PORTER, M. D.
Director

Prevention of Cancer.—According to a recent statement by the United States Public Health Service, one of the reasons why so many people die of cancer lies in the fact that the disease usually exists for some time before it is recognized and treated. It has then progressed from a local and small cancer to a large and dangerous one. It is, therefore, of importance that everyone should know something of the first symptoms of this disease.

If a beginning cancer was as painful as a sting, many people would go promptly to a physician and so receive the needed treatment early. But at first there is no pain or inconvenience. The symptoms develop gradually. Any lump, especially in the breast, which comes and remains for some time without satisfactory explanation should be looked upon with suspicion. One should go immediately to a competent physician. In many cases the suspicion of cancer will have been unfounded, but it is best to be safe.

Any sore that does not heal in persons above 35 years of age, particularly about the tongue, mouth or lips, is suspicious of cancer. Attention should be given to a spot where a tooth is broken or where there is an ill-fitting dental plate which has rubbed until a sore has resulted.

Any irregular bleeding or abnormal discharge from any of the orifices of the body is a danger signal which should be promptly heeded.

Persistent indigestion with loss of weight is a symptom of cancer of the stomach, which is so frequent as to make its earliest possible detection important.

There is no evidence to show that cancer is contagious. There is, therefore, no occasion to shun a person who has cancer, so far as danger of contracting the disease is concerned. The precautions to be taken by those who come in contact with cancer patients are only such as should be followed with infected wounds. Cancer is a disease against which improved sanitation is not capable of producing any effect, and personal hygiene has but a limited application.

It is desirable to treat all diseases in their early stages, but in no affection is it more necessary than in cancer. The danger is like that of a fire. At first there is but a spark which can readily be extinguished. As the flames spread the fire becomes more and more unmanageable. At last a consuming fire develops and control is no longer within human power.

The organized war against cancer which is being carried on in all civilized countries aims to discover all individual cases of the disease at the earliest possible time, and to advise competent medical care for the patient. The patient must give full coöperation to the medical profession, for it is obviously impossible for a physician to render any help unless the patient applies for it. The first thing, then, is for the public to learn the danger signals of cancer and report immediately to a physician upon suspicion being aroused that cancer is present or impending.

The second line of attack is research. More facts about cancer need to be discovered; how and why it occurs; by what procedure it may be prevented and cured. There is a great deal of information upon these subjects already, but there is need for more.

Many cases of cancer can be cured, and many more prevented, if the general public will give its full coöperation to the medical profession, which is striving to eliminate this disease.

Physical examinations at periodic intervals made with an eye alert to cancer, afford one of the best

means of protection against this disease. Such examinations should be taken once a year after the age of 35 has been reached.

Surgery, x-ray, and radium are the main weapons which are used to combat this disease. They are used as a preventive and as a cure. They are employed as preventives when they remove precancerous conditions, and as a cure when they eliminate cancer itself.

One of the reasons why cancer is so frequently fatal lies in the fact that those attacked are at first inclined to temporize with the condition. Some try home remedies, others put their faith in the advice of persons who know little or nothing about this subject.

When a person suspects that he or she has cancer the thing to do is to apply immediately to a competent physician or to a clinic. If he has a good family physician, that is the person to be consulted. If he wants to find a good physician he should select one who stands well among his fellows, one who occupies a responsible position in a hospital, one who is recommended by some other good doctor.

The cancer problem is, of course, the most baffling of those in the field of preventive medicine yet remaining unsolved. We should listen to no voice of discouragement. It is only by extending the present centers of cancer research and by creating new centers that success will ever be attained.

Oakland Makes Health Census of School Children.—

In an effort to extend the program of immunization against communicable diseases, Dr. A. H. Hieronymus, City Health Officer of Oakland, has undertaken a health survey of pupils in attendance upon the public schools of the city. Cards are issued to parents and guardians of school children, upon which vital information relative to the medical history of the pupil is asked. Every pupil in the public schools, from the kindergarten to the high school, is included in the survey. Complete histories, relative to the communicable diseases from which the child may have suffered, are asked for, as well as histories of immunization procedures. Doctor Hieronymus has secured the services of a statistician who will compile a report of the census which will constitute an important factor in the inauguration of a complete survey for the immunization of all school children against both diphtheria and smallpox.

Psittacosis Cases Reported.—At least two outbreaks of psittacosis, "parrot fever," have occurred in California during December and there is a strong possibility that other cases, as yet undiscovered, may have occurred within the state. The outbreaks that have been discovered and investigated by the State Department of Public Health are in Nevada and Merced counties. In Nevada County a traveling bird-van appeared in the community November 18, 19, and 20. In one family, a pair of parakeets was purchased November 20. One of these birds was taken sick and died about December 2. Two adult guests of the family became ill December 3; a member of the family was taken ill on December 5, and still another on December 14. All of these individuals presented symptoms typical of psittacosis and all of them died. There is a case of illness in a young adult who cared for one of these patients, and it is considered that this individual is suffering from a mild case of psittacosis. It is apparent that the disease may be contracted from person to person, as well as from birds, but such cases are not of frequent occurrence.

In Merced County two parakeets were purchased the last of November. One bird died December 25 and the other December 27. The mother of the family, who is past sixty years of age, at this writing is very ill. Young adults in the family who are contacts have, as yet, shown no signs of illness. These birds in

Merced County were also purchased from a traveling bird vender. Steps have been taken to locate this man and to determine the source of supply.

Health officers are warned to be alert for cases of illness in families which have recently acquired parrots, parakeets, or similar birds from unknown dealers. Such birds should not be handled. If they show any signs of illness, extreme care should be used in feeding them. It is important that gloves of impervious material be worn while handling parrots or similar birds if they are sick and they should be kept in strict isolation.

Apparently, psittacosis may be transmitted by birds that are, to all appearances, in good health as well as by sick birds. Cold weather may precipitate illness in an apparently well bird, with the presumption that such a bird may have been a carrier of the virus of the disease. It may also be possible to contract the disease through contact with the cage which has housed a sick bird.

Psittacosis was reported extensively in the United States in 1929 and 1930. According to the records of the United States Public Health Service, 169 cases of psittacosis with thirty-three deaths occurred in the United States from November 1929 to May 1930. These cases occurred in fifteen states and the District of Columbia and do not include sixteen laboratory infections with two deaths, nor twelve probable cases which were removed from two merchant ships entering United States ports following exposure, aboard ship, to parrots purchased in Germany and Brazil. In California, from December 1929 to January 1930, ten cases of psittacosis with two deaths were reported. One of these fatal cases occurred on shipboard en route from Los Angeles to Honolulu. It was because of the appearance of the disease in the United States that President Hoover, early in 1930, issued an executive order under which the importation of parrots from foreign countries was forbidden. This order was modified October 31, 1930.

The Epidemiological Report of the Health Section of the Secretariat of the League of Nations for April 15, 1930, carries a most extensive report on psittacosis. Although it is a rare disease, mention of it has appeared in medical reports for at least fifty years. Extensive outbreaks occurred in Paris in 1892, with fifty-one cases and sixteen deaths. A severe outbreak occurred in Germany in 1909; a similar outbreak in Scotland in 1924; and one case occurred in the United States in 1928.

Most epidemics of psittacosis are small outbreaks which are confined to members of the same family and to persons living in the same house. Most cases are in persons who have been in direct contact with sick parrots or birds belonging to that group. It is said that the attack is more serious when contracted from a bite or peck by the bird. The incubation period is generally from eight to fifteen days and the onset is sudden. The beginning symptoms may be chills, vomiting and headache, malaise, diarrhea or constipation. Pulmonary symptoms are always present and the pneumonia is atypical. The pulmonary symptoms, however, may not be the immediate cause of death. A typical symptom is the almost complete absence of expectoration even when the pulmonary symptoms are serious. Sputum, when present, is sometimes rusty but is never blood-stained, as in typical pneumonia. The nervous symptoms are marked. Psittacosis patients are pale and weak. Their cheeks are not flushed and the respiratory silence is more typical than it is in pneumonia. The history of contact with a sick parrot is an important link in the chain of evidence which leads to diagnosis of the disease.

The Hooper Foundation for Medical Research, Dr. Karl F. Meyer, director, is coöperating with the State Department of Public Health in the laboratory work connected with the investigation into psittacosis in California.

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA

By CHARLES B. PINKHAM, M. D.
Secretary of the Board

News Items, March 1932

The 1931 annual report of the Board of Medical Examiners was recently filed with Governor Rolph. Five hundred and fifty-seven licenses of various classes were issued of which 505 were physicians and surgeons. Written examination records show that 93 per cent of the total number of applicants passed. Fifty-four medical schools, both in the United States and abroad, sent 336 applicants before the board for written examination. One hundred and seventy-three reciprocity certificates were issued, Illinois sending the largest number, Minnesota second, Ohio and Iowa tying for third. Thirty-nine California physicians and surgeons sought registration in other states. Thirty-four licentiates were called before the board for various indiscretions, the larger number being charged with narcotic violation. Sixteen licenses were revoked, four suspended, four placed on probation, eight dismissed, and two cases unfinished. The legal reports, both north and south, show continued activity in discouraging violations of the law. Comment was made that "Many of the worst fakers in the United States come to California to prey on those who are afflicted with some bodily ill, and unfortunately, no matter how utterly ridiculous the system of treatment may be, there are always many who fall for it and lose not only their money but, in many cases, their chance for life itself by delaying the proper treatment too long. This is especially true of cancer sufferers. They have been singled out as the legitimate prey of scores of fakers who, with some mysterious but worthless nostrum or method of treatment, obtain hundreds of thousands of dollars annually from these poor sufferers without giving anything of value in return." Two hundred and thirty-eight licentiates passed to the Great Beyond during the year.

"Dr. Edward M. Pallette, prominent Los Angeles physician and former assistant city health officer, was appointed a member of the State Board of Health by Governor James Rolph, Jr., yesterday, according to Sacramento dispatches . . ." (Los Angeles *Illustrated Daily News*, January 20, 1932).

At the regular meeting of the Board of Medical Examiners held in Los Angeles, February 1 to 4 inclusive, the following changes were made in the status of licentiates: George H. Bland, M. D., Fresno, license revoked February 2, 1932, for violation of probation re narcotics; William B. Hamilton, M. D., license revoked February 2, 1932, based on revocation of his Utah license on which he obtained his California reciprocity license; Clarke S. Smith, M. D., Oakland, license revoked February 2, 1932, for violation of the terms of his probation re narcotics; Alfred G. R. Castles, M. D., Los Angeles, placed on probation for five years, February 2, 1932, based on advertising contrary to law; Cary A. Snoddy, M. D., Vallejo, found guilty February 2, 1932, in connection with narcotic indiscretions, was placed on probation for a period of five years without narcotic privileges. Aubrey H. Staples, M. D., Oakland, found guilty of narcotic indiscretions, was on February 2, 1932, placed on probation for a period of five years without narcotic privileges; on February 2, 1932, the board found Maurice J. Pullman, chiropodist, Los Angeles, guilty of advertising contrary to law, and deferred imposition of penalty until the July meeting; the revoked license of Roy L. Buffum, M. D., Long Beach, was on February 2, 1932, restored, and he was placed on probation for a period of five years without alcohol or narcotic privileges; the revoked license of John H. Seiffert, M. D., San Diego, was restored February 1,

1932, and he was placed on probation. The board approved as institutions for the treatment of narcotic addicts the Angelus Hospital, Los Angeles, French Hospital, San Francisco, and the Neal Institute, San Francisco, under the provisions of the state narcotic law and Section 14, Subdivision 6 (a) of the Medical Practice Act. Approval was denied the Narcotic Hospital, Inc., Ltd., of Los Angeles. Sixty-four applicants reported for written examination, including three chiropractors and one midwife.

An individual reported as "Dr. W. S. Cravens," recently returned from Reno, Nevada, to Modesto on a bad-check charge, is reported by the Bureau of Criminal Identification and Investigation as having quite a police record, commencing in 1920 when he was an inmate of the United States penitentiary at Leavenworth, Kansas. He is reported to use the aliases Dr. I. R. Calkin, Louis Bressette, William J. McFarland, I. R. Calkins, Scott C. Craven, Dr. J. R. Calkins, William Scott Clinton Craven, and Dr. E. J. Simmons. We find no evidence of his medical credentials.

It is evident that many licentiates are unaware of the law requiring immediate report to the police of gunshot and knife wounds, judging from the experience of Dr. Victor Campbell, Palm Springs, who, according to the *Riverside Enterprise* of January 30, 1932, was recently fined \$250 by Justice Lee D. Childers for his failure to report treatment of gunshot wounds suffered by "Leslie Smith, Los Angeles murderer . . . in a gun fight with police in Los Angeles. . . . Doctor Campbell treated Smith in his office the night after the murder of Officer Gillespie in Los Angeles during a holdup. . . . He admitted that he did not notify police and sheriff officers by telephone and by writing as is required by law. . . ."

Tsuneyoshi Koba, alias Tsuneyoshi Kola, alias Tsuneo Kuba, mentioned in the 1929 annual report of the Board of Medical Examiners in connection with fraudulent medical diplomas, was recently reported as having pleaded guilty in New York City to a charge of attempted forgery in connection with alleged medical credentials and was sentenced to one to three years. (Prior entry, February, 1930; September, 1931.)

According to reports, a jury in Los Angeles on January 30, 1932, found H. Allen Peters guilty of violation of the Medical Practice Act. (Previous entry, June, 1929.)

Reports relate that a jury in a Los Angeles court found W. I. Schuster, licensed chiropractor, guilty of violation of the Medical Practice Act, and he was sentenced to pay a fine of \$100 or serve fifty days in the city jail. Notice of appeal was filed.

K. Tanaka was reported to have pleaded guilty in San Pedro on January 8, 1932, to a charge of violation of the Medical Practice Act, and sentenced to serve sixty days in jail, sentence being suspended six months on condition that he no longer violate the Medical Practice Act.

"Pleading guilty to a charge of violating Section 17 of the California Medical Practice Act, Frank Wegge, forty-two, yesterday received an unusual sentence from Municipal Judge Joseph L. Call in the San Pedro court. The judge ruled that the defendant be given a 180-day sentence, the first five days to be served in jail and the balance of 175 days to be on parole. Wegge is an assistant to a local physician. . . ." (San Pedro *News-Pilot*, January 19, 1932).

New Radium Find in Canada May Break Belgian Monopoly.—That radium to the value of several millions of dollars, just discovered in Canada, will break the Belgian world monopoly of this precious substance and speed up the relief of cancer victims is the opinion of competent mining experts in Washington.

The pitchblende treasure bearing \$7000 worth of radium in every ton of ore, discovered by Gilbert LaBine and Shirley R. Cragg, airplane prospectors, of the El Dorado Mines Corporation at Labine Point in the Great Bear Lake region, is equal in richness to the best ores of the Belgian Congo, which since 1922 have driven all competitors, including the United States, from the market.

The new ore is here described by geologists as "a very substantial deposit of high-grade material" yielding one three-hundredths of an ounce of radium per ton. Twenty tons have already been shipped on a fur steamer of the Mackenzie River and forty more tons mined ready for shipment at a cost which compares favorably with Belgian freight charges on the long passage from Africa to the refineries in Europe.

Hundred-pound lumps were actually picked up on the surface. The radium from these will yield \$70,000 a gram, whereas the most valuable emeralds fetch only \$5000 a gram. Silver ore yielding \$300 a ton has been found alongside.

The Canadian discovery, consisting apparently of several thousand tons of ore, will add greatly to the world's present 600 gram total supply of radium. Treatment of cancer, until now hindered by the prohibitive prices, will be helped.—*Science News Letter*, November 14, 1931.

Physiologist Appraises Doctor Warburg's Work.—A scientist's estimate of the achievements of Dr. Otto Warburg in recognition of which he has been chosen for the Nobel Prize in medicine and physiology for 1931 are contained in a statement made to Science Service by Dr. W. H. Howell, chairman of the Division of Medical Science of the National Research Council. Doctor Howell was for many years director of the School of Hygiene and Public Health of the Johns Hopkins University, Baltimore. He said:

"The selection of Professor Otto Warburg for the Nobel Prize in medicine and physiology for 1931 will be cordially approved by American physiologists. He is well known and esteemed in this country for his fine work upon cell metabolism.

"His investigations upon the respiration or mechanism of oxidation in the living cell are of fundamental importance. He has shown that the cell depends upon the ion contained in it to utilize the oxygen that is brought to it by the blood. The ion exists in the cell in a special form, an iron porphyrin compound, which is present in very minute concentration, perhaps one part to a million, but it is very active and functions as a catalyst or ferment which takes up the oxygen and then gives it to oxidizable substances within the cell—in such small amounts its nature could not be detected by ordinary chemical means, and Professor Warburg devised a delicate spectrographic method, depending upon the absorption bands given by its compound with carbon monoxide.

"Another significant contribution was his study of the metabolism of the cancer cell as compared with the normal cell. He was able to show that malignant growths have a small respiration but contain relatively large amounts of lactic acid. His work figures largely in all discussions upon the cause of cancer."—*Science News Letter*, November 7, 1931.

Some Parents Are So Careless.—"Speaking of signs," writes W. P., "I remember once standing in front of a grocery store and noticing the sign, 'A Swindler,' on the window. Entering, I asked the proprietor if it wouldn't look better if, instead of 'A,' he printed his full Christian name.

"'No,' he said, 'it would look worse. My first name is Adam.'"—*Boston Transcript*.

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CIRCULATING MEDICAL LIBRARY SERVICE FOR PHYSICIANS*

SOME COMMENTS ON THE IOWA AND WISCONSIN
EXPERIENCES

By FRANCES B. VAN ZANDT, A. B.
San Francisco

MEDICAL education has made notable advances during the last two decades. Knowledge in matters related to medicine has increased with unforeseen rapidity. The cost of medical education has so consistently increased that the coöperative control as well as ownership which the physicians once possessed over the medical schools is a thing of the past. The proportion of active practitioners of medicine in medical faculties is declining. Also it is an absolute impossibility for the physician to read all of the literature with which he needs or wishes to be familiar.

PHYSICIANS NEED ACCESS TO RECENT LITERATURE

One of the important problems which remains to be solved is that of keeping the doctor in touch with his advancing science, particularly the doctor whose field is not in a great city, with its libraries, its lectures, and its frequent group meetings—the doctor who works in the small town or village. We still have nearly one-half of our population outside the cities, and even with the automobile, which enlarges the effective urban area and the hospital and clinic radius, there is still a large suburban practice and a large number of suburban, village and small town doctors. It is as necessary to give physicians so located an opportunity to keep up to date twenty years after they are out of school as it was to insure them a first-class medical education at the outset. When physicians are at school they are accustomed and encouraged to use books. A medical library was at their disposal, and every new case or variation of an old case was the occasion for a consultation with the literature. The most recent experimental work and the most authentic clinical studies were kept before them in the library reading room. They were encouraged to browse freely.

But settled, for example, in the little city of Hilldale, with five thousand inhabitants, with its Carnegie library, and exacting demands of a grow-

ing practice, a small but growing family, and something near to a living, has a recent graduate an adequate opportunity to keep alive his scholarly habits? Where shall he get that contact with the world of workers in the field of medical science which became part of his case studies in the medical school and the hospital? Where shall he find the inspiration that he had in his clinical years and his internship, to keep abreast of the fast-moving medical front?

The library he possesses is what he was able to buy as a medical student; not much more than that probably for a good many years. His chance to attend really helpful and inspiring meetings were not any too frequent. The Carnegie general library of Hilldale was able to contribute little to the solution of his problem. The *Journal of the American Medical Association* supplies a great deal of new information and fresh inspiration, and if alert he reads it carefully and eagerly. But the chances are that the particular topics or diseases he wants to read up on may not be mentioned for months.

How can such an eager, well trained, energetic young man, who still retains his scholarly habits and his scientific point of view—how can he be kept a medical producer, a genuine investigator, an up-to-date physician ready to transmit to his patients every advantage that comes from the laboratories and clinics the world around? Is not that the problem which faces us?

THE IOWA AND WISCONSIN LIBRARIES

In both Iowa and Wisconsin attempts have been made to solve it, and inasmuch as an experiment in education is valuable only as it is critically assayed and widely understood, it seems worth while to describe these two experiments so far as they have gone, the writer having been associated with each of these institutions. The basic plan in both states has been the development of a circulating medical library for a doctor clientele.

THE CIRCULATING MEDICAL LIBRARY IN IOWA

About ten years ago the State Library at Des Moines, Iowa, received some gifts of medical books and medical journals. Dr. Gersham Hill and Mr. Johnson Brigham, state librarian, proposed to make this collection the nucleus of a working, circulating medical library for the physicians of the state, and, of course, anyone else prepared to profit by such a service. All of the medical literature in the library (bound or un-

* Paper presented by request. The Medical Advisory Board of the California Medical Library has recommended the appointment of Miss van Zandt as chief librarian of the California State Medical Library.

bound), periodicals, pamphlets, current or older, was to be available to borrowers for periods of two weeks with the privilege of renewal. No limits were set as to the amount which could be secured on a request. Applicants for receipt of current journals routinely were so listed as to receive in regular rotation journals desired just as though the borrower were receiving them by subscription from the publishers.

After establishing these services it became possible to offer others in addition. For example, a doctor who had encountered a medical problem concerning which he desired more medical literature than he had at his command might send a request for help to the Iowa Medical Library. Such requests were received by letter, by special delivery, by telegraph, by telephone, or by personal request in case the doctor lived near the library. The haste and the scope of the search were determined by the urgency and the nature of the request as transmitted. Urgent requests for literature were dispatched by the most expeditious method available. In some instances the desired information was read to the physician over the long distance telephone. More leisurely services of this sort related to bibliographies for case reports, and for papers to be published or read at meetings of national or local medical societies or for other occasions. No limit was placed upon such requests except those demanded by practical considerations of budget and personnel. The expense of any loan or service was limited to the payment, by the borrower or recipient, of postage or costs of transportation both ways.

The initial costs of books and periodicals, the salaries of the staff and other clerical expenses were paid by the State of Iowa. In the initiation of the Iowa project there was no overhead. The library was housed in the State Historical Building in connection with the State Historical Library. Heat, light, and furnishings were provided. The first budget estimate was \$5000 for the salary of the librarian and for books and journals. By the end of six months the service had grown to the point where two assistants were employed part time at first, but soon at full time. More books were purchased as the developing needs indicated, and travel expenses added for the making of contacts throughout the state.

In the course of five years this circulating medical library service grew to the point where over ten thousand pieces of medical literature were being loaned annually by the library. The growth of the Iowa Circulating Medical Library is indicated by the number of annual loans made.

In the five years since its organization the service had evidently not begun to approach the saturation point. The curve is probably a fairly good indication of what may be expected in any similar state project. In the second year the largest increase occurred. Approximate saturation might be expected in eight to ten years, depending, obviously, on how effectively the campaigning for subscribers is conducted.

THE CIRCULATING MEDICAL LIBRARY IN WISCONSIN

In Wisconsin the set-up was somewhat different from that in Iowa. The very active Extension Division of the State University undertook to develop the circulating medical library in conjunction with the library of the Medical School of the University of Wisconsin. The plan for circulating journals and other medical literature as well as the other services of the library were essentially the same as that which had been previously developed in Iowa. At Wisconsin this service was classed as Adult Education, and therefore not regarded as an indispensable service of the state university. In addition to the actual payment of postage both ways, the borrower was required to pay a packing charge of ten cents per bound volume, and five cents for unbound pieces. This tariff was imposed during the third year and was not a fortunate one. It is obviously unfair to the man who orders a dozen unbound pieces at once. It created occasional resentments sufficient in some instances to lose the subscribing members and the good will of themselves and their friends.

In the data secured from the first four years of operation at Wisconsin, two interesting points are brought out. First, the effect of an intensive "selling" campaign for subscribers. This was authorized by the university and conducted by the librarian, and was carried directly to the local communities in addition to such advertising as could be obtained by personal presence, and exhibitions of books and journals at sessions of the Wisconsin State Medical Society. Later the campaign was discontinued for lack of funds. Second, the drop in the service curve during the last year was the result of increased tariff charges and a curtailment of both "salesmanship" efforts and the number of journals subscribed for. Two of these items caused dissatisfaction among a clientele not yet habituated to the service; the other cut off the opportunity to increase the subscribers. It has been our experience that the number of physicians who are able to see at a glance the advantages of such an educational opportunity, owing perhaps to its novelty, is limited. The men must be met and won individually. They often join the group with some reluctance. Once in, however, their appreciation of the service grows. One other point deserves comment. In both the Iowa and Wisconsin projects it was found that the service very quickly was demanded across the state borders. As this is written the Wisconsin Circulating Medical Library is serving thirty physicians in six adjoining states. This has many interesting and suggestive aspects.

It is interesting that of a total enrollment of 1327 physicians, about 970 were practicing physicians or local clinics. The remainder contained a considerable proportion of medical students who have not completed their course, nurses, state health workers, lawyers engaged in medico-legal cases, and a small number of other citizens.

COMMENT

In reviewing the experiences at Iowa and at Wisconsin, a number of points appear to be of importance:

Judged by the periods of growth, the service in each of these two states has been an unqualified success. No experiment in education can be properly evaluated in five years; but with adult groups, well educated to begin with, and composed of members of an intellectual profession demanding increasing amounts of scientific material each year for study, it may be assumed that a genuine educational need exists and is being met. Where success in practice depends to a very considerable extent on the thorough understanding of the science of medicine, the immediate value to the community in providing opportunity for continued study and advance by the practitioner probably needs no argument. Some plan of the sort described—some solution of the problem as stated in the beginning of this paper—should eventually be worked out for every state and community in the country.

Judged by the reaction of subscribers, there is no question but what the Iowa and Wisconsin experiments have been successful. In the first place, there has been very little annual loss of clientele. A man once on the subscribing list usually stays on it.

In those states the subscribers tended not only to remain on the borrowing list, but a surprising number of them were appreciative to the point of writing in their commendations. Those libraries have files containing hundreds of unsolicited letters expressing appreciation for a service which was felt to be of the greatest advantage to the profession and to the public. When busy men sit down to express such reaction, one may be quite sure that they have a genuine feeling of practical benefit received. They may be construed to give a true evaluation of this medical library educational service.

A STATE MEDICAL LIBRARY SERVICE NEEDS
CAREFUL PLANNING

When such a library service is introduced, it should be amply provided with the means of growth. Further than that it should be *made* to grow. In both Iowa and Wisconsin the beginnings were small. The probable expansion could not be clearly foreseen. In Iowa the first year's tentative budget was outgrown within the first six months. The requests for service increased so rapidly that by the end of that time two additional assistants were required to meet the expanding demands for books, journals, and bibliographies. Before such a service is set up the field should be surveyed, the possible clientele estimated, and every effort made to rapidly enlist the active support of the medical profession. The value to the state lies in making the service state-wide, and in having every physician a participating member in the organization.

The budget should be adequate to permit a state-wide personal contact campaign for active coöperation. A campaign by prospectus is of only

limited value. The State Medical Library may be advertised and demonstrated at the annual session, and through the official publications of state and county medical societies. We secured interest and new members from our "exhibits" at state society sessions. But the real harvest in Iowa and Wisconsin came from out-of-town "barnstorming" expeditions, where the librarian went into the different communities and called at the offices of the local doctors to explain the plan. The large increase during individual years of operation in both Iowa and Wisconsin was directly traceable to such canvassing for subscribers. To illustrate with some of the results of a single trip in which the towns of the Fox River Valley, Wisconsin, were visited: In one town every doctor "prospect" received a call, and the result was a subscription list of 100 per cent. In another town where eleven doctors were registered, one was out of town, one retiring; but the subscription list contained seven of the remaining nine names as a result of the doctor-to-doctor canvass. In larger towns and cities the actual number of borrowers does not always appear, the physicians of a clinic, hospital or other group frequently pooling their requests through their administrative office.

The Wisconsin experiment is particularly valuable because it illustrates how a prosperously expanding library service may be temporarily stunted. At the end of the third year the library service had grown to the end of its budget resources. No more efforts to secure new subscribers were permitted. If this factor had operated alone, the slope of the curve would have altered, of course, but there would have been the slower growth due to the natural tendency of the man who finds his colleague enjoying an advantage to avail himself of it also.

A second potent factor in the decline during the fourth year was the necessity to curtail the current periodical list. Drastic economy was the reason and so could not be avoided. But the result was unfortunate. The regular subscribers to current journals found themselves no longer able to get their numbers from the library, or the receipt was delayed to the point where the keen interest in new material was lost, and the subscriber, disappointed, dropped out. A current journal several months old may still be valuable to the student, but it has lost the attraction of a number just off the press. At the same time, and again in the interest of strict economy, it was decided to impose a packing fee in addition to the previous postage charge both ways. This packing fee was unfortunate, and to some men irritating. A single volume cost ten cents, unbound journals five cents, whether shipped singly or in bundles. Subscribers felt this charge to be an injustice and, resenting the innovation, resigned.

THE INITIAL CAMPAIGN

This experience emphasizes the genuine need of a continuing selling campaign till the service has become established in every community. After that the human instinct for joining a popular and going concern may be depended on to bring in

scattering practitioners who eventually hear about it. It also emphasizes the necessity of initiating the project on a thoroughly thought-out basis. If charges in addition to postage must be made, they should be made at the start and accepted by subscribers. Increase in the charge after a few years' operation is very like a sudden upward shift in a tariff wall. It causes resentment; it is hard to explain to the man who has been a previous subscriber; it will undoubtedly occasion withdrawals by the men who have not become habituated and do not feel the service as a real necessity in their practice. And finally the curtailment of the current journal service, after it has been established, is bad psychology. It would be much better to start such a service at a predetermined level and with a budget arranged in advance to carry the same quality, regardless of the increased traffic. To increase the price of a commodity as the volume of the business increases, is only to invite misunderstanding, resentment, and a consequent reduction of clientele.

The circulating library might very well be operated under the direction of a state medical society, or even of a strong county society. It might well be a private coöperative venture, run as a non-profit service. A group of 250 initial subscribers at \$25 a year would probably form an adequate nucleus for a thoroughly satisfactory mutual library service of this sort. Once in operation, each subscriber receiving in regular rotation the journals which he desired, the gradually acquired reference volumes and the accumulating journal files would continually increase the value of the service rendered.¹ Increased clientele could be secured as in the other plans, and with each increment the funds available for building up the library would increase also. Each subscriber might be expected to act as a salesman also in such a coöperative venture, and it would probably grow, like the proverbial snowball, by its own tendency to accretion. An initial stake in funds or a substantial bequest in the form of a private library would do much to make the difficult first year less difficult, and assure success to such a coöperative business venture.

IN CONCLUSION

In conclusion it may be said that the time appears to be thoroughly ripe for a new advance in the field of medical education. That it is needed no one is more thoroughly aware than is the practicing physician himself. That it will result in genuine advance in the science and art of the profession there can be little doubt. That it will be seized upon and appreciated has already been demonstrated in at least two states. That it can be done, and that it is a success so far as any education can be proven to be a success by figures, is clearly shown in the experiments set up in Iowa and Wisconsin. It appears reasonably certain that some such solution of this problem will soon be undertaken in many communities and states throughout the country.

¹ We have found it advisable to keep journals unbound. By so doing the various numbers are then available, the tie up of material avoided, and transportation is minimum.

CERTAIN ECONOMIC PHASES OF MEDICAL PRACTICE*

By WILLARD J. STONE, M. D.
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DISCUSSION by A. L. Bloomfield, M. D., San Francisco; William J. Kerr, M. D., San Francisco; B. O. Raulston, M. D., Los Angeles.

WE have witnessed today the dedication of the Falk Clinic, a memorial building designed to serve as the general dispensary for the hospital development of the School of Medicine of the University of Pittsburgh. As in other instances, it represents the generosity of those who have lived and learned of the afflictions of their fellow men. It represents also the extension of their benevolent personalities into the future since, and that for years to come, their hope for human progress, with advance of civilization, will be perpetuated through education, through social betterment and the relief of suffering. We express our admiration to the donors of this wonderful building and equipment, to Mr. Maurice Falk and to the family of his brother, the late Leon Falk, whose benevolences are here perpetuated. To the people of Pittsburgh we offer congratulations that they possess such generous citizens who realize that the efficiency of any nation depends upon the health of its people, and that measures designed to promote health and happiness should be considered among the most worthy of individual efforts.

THE DEVELOPMENT OF HOSPITALS

To those who are not familiar with the rapid growth of hospitals in this country it may be mentioned that they now constitute the sixth largest industry in point of capital investment. From the standpoint of their value to the physical and economic welfare of our people hospitals rank first. In this country about three and one-half billion dollars are invested in hospital buildings and equipment providing over nine hundred thousand beds. The amount spent for new construction amounts to about \$200,000,000 annually. The hospitals of this country employ over 650,000 people, not including physicians and nurses. The annual cost of maintenance is about \$900,000,000.¹ About twelve million patients, approximately one in ten of our population, are treated in hospitals each year. The problem of providing efficient care for the sick in a period of increased costs and decreased revenues is a great one. It is well known that hospitals are rarely self-sustaining because of the increased demand for the care of the indigent sick. If it were not for the generosity of benevolent people, since the costs generally exceed the revenues, few hospitals could survive. But the generosity of philanthropists may tend to diminish if more interest is not manifested by the general public in doing its part to make hospital service more nearly self-sustaining than at present.

* An address delivered before the Allegheny County Medical Society, Pittsburgh, September 28, 1931, upon the dedication of the Falk Clinic.

CAN COSTS OF MEDICAL SERVICE BE REDUCED?

The medical profession should be vitally interested in the reduction of cost of hospital service. It would be able to assist in securing many curtailments which have to do with what may be called the nonessentials, if it had better coöperation from the people it serves. I refer to the demands of many patients for the superlative in service and equipment because of fear and emotional instability which so often develops in case of illness. We have all heard the time-worn phrase "spare no expense" in the anxiety of the moment. We can well understand the apprehension that accompanies illness. But we find it difficult to comprehend, from patients whom we know are in no position to stand unnecessary expenses, a spirit of hurt pride or resentment if it is suggested that equally efficient care could be secured in less expensive accommodations. In the past three decades the intricacies of hospital care and service have greatly increased. Where formerly simple diets were the rule, consisting of a regular, soft or liquid diet, we now have the regular, light, soft, liquid, and light liquid regimen, besides many special nephritic, diabetic, minimum residue and high carbohydrate assortments. In the matter of nursing, many patients not requiring special care could, so far as their recovery is concerned, be as adequately cared for by half-time service in which one nurse would care for two or three patients. Such a plan of group nursing for private-room patients has been tried in some hospitals, but its success has not been outstanding, due, in large measure, to the many demands and constant care which patients seem to feel they require. The cost and maintenance of nurses' training schools, which should be considered a part of our educational system, should be borne by some form of county or state aid or subsidy, the cost of which would be more evenly distributed through taxation upon the entire population instead of being added, as at present, to the per diem cost per patient.

Pharmaceutical Economics.—About one year ago in the Pasadena Hospital, after considerable labor, we installed a simple formulary, consisting of established pharmacopeal remedies which time and experience had proven of value and which we hoped would decrease costs to patients. Our experience could probably be easily duplicated in many other hospitals, for we know that physicians generally have acquired the easy habit of prescribing trade-named remedies, such as diuretin, costing the pharmacy \$1.85 per ounce, rather than its equivalent, theobronin sodium salicylate, costing thirty-two cents per ounce. The list is a long one and includes anacin, bisodol, listerine, absorbine, aspirin, urotropin, fancy cough mixtures, tonics and cathartics, luminal, and extravagant digitalis preparations, none of which are superior to pharmacopeal remedies, but which add to the patient's expense while in the hospital. The patient who pays fifty cents for a seven-ounce bottle of listerine does not realize that its equivalent,

the liquor antisepticus of the National Formulary, can be made by the pharmacy in gallon lots for eighty-five or ninety cents. Likewise he does not realize that elixir of luminal costs over \$14 per gallon and is charged for accordingly, while the pharmacy can make an equally efficient elixir of phenobarbital, its equivalent, for less than \$4 per gallon. The list could be enlarged considerably. Physicians have, it is true, the legal right to prescribe what they wish for their patients, but whether they have the moral right to increase the cost of hospital service by thoughtless prescribing of proprietary remedies is questionable. The public may choose to spend annually more for patent medicines than it does for medical care, but for this we are not responsible. We should, however, make every endeavor to keep our own house in order.

Special Examination Costs.—Many hospitals are so planned, in order to provide for the future and emergencies, that their full quota of beds are not occupied at all seasons. It is estimated that about 40 per cent of available beds are unoccupied each day. In the interest of efficiency, about which we hear so much in business affairs, there should be no valid reason, so far as I can see, why hospitals should not reduce their charges for special examinations, such as basal metabolism determinations, x-ray procedures and electrocardiograms for in-patients, below the level charged in private offices or clinics in the same community. The criticism would be made that this would result in direct competition with the work done in the offices of physicians who many times have a heavy overhead to maintain. On the other hand, it may be mentioned that patients in the hospital are paying an overhead charge for their rooms which should entitle them to a reduction in the cost of special examinations. Ambulatory patients who come to the physician's office are not obliged to bear the expense of hospital accommodations or forego their income while under treatment, and should be willing to pay more for such examinations. A plan which would lessen the cost of special examinations for hospital patients would also increase efficiency, since it would make physicians more disposed to employ these possible aids if they felt that the additional cost was justifiable.

In many hospitals I am certain that the revenues could be increased to the satisfaction of the management, and the costs decreased to the satisfaction of patients, if x-ray and other examinations were reduced in price 30 to 40 per cent. The increased volume of work done in hospital laboratories under such a plan would probably involve but slight additional expense in the way of personnel. The managements of hospitals have been loath to establish such a plan for fear of antagonizing the medical profession upon which they depend for support. There probably would arise a spirit of criticism and discontent, but eventually it would be appreciated that such a plan was of advantage to all concerned.

MEDICAL EDUCATION AND SPECIALISM

A critical public has found itself increasingly disposed in recent years to spend its money more lavishly and, it is feared, more unwisely for medical care than in former times. A large percentage of the complaints for which people consult physicians are not of serious consequence at the moment. That trivial complaints may become serious no one will question. The general practitioner or family physician should be the first logical adviser, but for some reason difficult to understand, the impression has gained ground among many of the so-called better educated and more prosperous people that a specialist of one kind or another, should be the first one to be consulted in the belief that he possesses knowledge not available to others. Fortunately there exist in every community competent general practitioners of medicine from whose clientele one rarely hears complaints about the cost of medical service. We all recognize the value of special training and are dependent upon it, but we must admit that it has added unnecessarily in many instances to the costs of illness.

Is Medical Training Well Proportioned.—In the education of the medical student stress has been laid in recent years upon the development of scientific investigation. In the care of the sick sympathy and understanding are important adjuncts to scientific knowledge. The physician of three or four decades ago, while possessing less knowledge, apparently had the advantage of more time for sympathy and understanding. This may explain the veneration felt for the family physician of earlier generations. Unfortunately research, as we now know it, and medical practice as the people want it, are divergent in their aims and incompatible in their purposes. How shall the two fields be covered adequately in the education of the medical student? It may seem presumptuous to offer suggestions to educators, but there may be reason to question the advisability of training students who are to become practitioners of medicine, in many of the detailed subjects which are of little value to them later. It should be possible to condense certain courses in bacteriology, embryology, histology, organic and physiological chemistry. The student who is to become the general practitioner should have some knowledge of these subjects, but in practice he has relatively little need for them. The educator rightly holds that a knowledge of these subjects is necessary for the student in order that he may comprehend what is to follow and that he may develop a reasoning mind. The educator and his product, the practical physician, have not always enjoyed the same perspective. The teacher is intent on giving the student a thorough knowledge of his subject, many times to the point of saturation, while the student desires to learn that which is utilizable, since he cannot hope to retain all. It becomes a matter of comparative values as to what is important and what is less important. For example, I am sure that in his care of

the sick the practical physician could use a knowledge of sociology, economics, and psychology to greater advantage than some of the subjects mentioned above. He has need as frequently to ponder the impaired mental reaction to illness as the physical ailment.

The medical student's educational investment in time and money expenditure has greatly increased in the past three decades. Eight or nine years of collegiate and hospital training now constitute the average length of time required in preparation for practice. This cannot well be otherwise in an age of rapidly advancing knowledge; but it would seem to represent the limit of time which the student should give before beginning his life's work. The greater part of his education, in any event, must necessarily follow in the school of experience.

The Rôle of the General Practitioner in Medical Practice.—It would be interesting to follow the result of a plan of teaching in which schools of medicine would emphasize more than at present the rôle played by the general practitioner in medical practice. In such a plan the specialties would be reserved for those who have completed subsequent courses of postgraduate work in special institutions of training. Research in the academic sense would be conducted, under such a plan, in special institutions devoted to the purpose, while teachers would emphasize the practical, rather than the research, aspects of their work to their students. It was Osler who told us that "every medical student should remember that his end is not to be made a chemist or a physiologist or an anatomist, but to learn how to recognize and treat disease, to become a practical physician."

The medical student of today graduates and goes into practice, as Crosby has recently emphasized,² without the slightest conception of the economic relationship of his work to his patients. Tulane University Medical School is the only institution, according to my information, which is making an attempt to instruct students in the economic phases of medical practice. It would make the early years of practice much easier for the young physician, and the public less disposed to be critical of his inexperience, if he had been instructed before graduation in some of the simple amenities of conduct so admirably described by the late Dr. Norman Bridge in his book "The Rewards of Taste." It would also be of great assistance if he had been instructed in matters pertaining to office management, to the form of his records and accounting, and if the attempt had been made to outline his attitude of constructive responsibility and frankness toward the public he had been trained to serve. This latter point deserves emphasis since there has been a tendency on the part of the medical profession to hastily dismiss, sometimes with rancor of spirit, any public plan which did not for the moment agree with its thoughts on the matter. A biased attitude may readily accomplish its own defeat, while its counterpart, a guiding perception of what the people

want, or think they want, may prove to be a constructive effort. The younger generation of physicians will undoubtedly be called upon, unless all signs fail, to assist during the next two decades in the settlement of perplexing problems having to do with the socialization of medicine. Their attitude may have much to do with the success or failure of proposed plans. Since students are apt to think as their teachers have thought, the breadth of vision of the teacher in social matters assumes great importance.

THE INDIVIDUAL POINT OF VIEW

It has been said that a man's first social obligation is his own education. Scientific medicine has made great progress in the three decades of the present century. In the spirit of social education our progress has been less conspicuous. We have constantly been seeking scientific information available for the care of the sick, but in so doing, it has been said that we have lost some of the homely virtue of tolerance, and that we have acquired a critical or analytical point of view which did not lend a ready ear to the common everyday complaints for which people seek advice. In our preparation for the serious things in life we have perhaps been inclined to manifest less interest in the trivial episodes.

We have surrounded ourselves with facilities and equipment which may be unnecessary for the care of the majority of patients who consult us. They may not understand why they should be called upon to help bear the expense of equipment, whether in hospital or clinic, which to them has not been useful. Yet a comparable condition exists in every phase of activity. It is only when applied to the professional field that a discussion of these matters with the public carries with it the fear of commercial stigma, an obsession which has long characterized the attitude of our profession.

In every generation there has existed a wholesome spirit of criticism against existing methods and knowledge. There probably will exist as much discontent in medical matters one hundred years hence as is apparent today. The average person has no perspective or knowledge of conditions under which men lived and died fifty years ago. He is only concerned with his present difficulties and does not realize that there has never been a comparable period in the world's history when so much intelligent medical service may be secured by those who seek it. The patient's attitude is largely one of continued protest against his individual incapacity and suffering. The medical profession has viewed, of necessity, the matter of illness more broadly, while the patient's individual perspective is limited to his own horizon.

We may obtain solace from a view of the other side of the picture, with the thought in mind that there are many things we probably cannot visualize correctly because we are so close to it. We have improved our hospital services and extended the field of preventive medicine. The criticism may not be raised that we have been less inter-

ested in the humanitarian aspects of medicine than in former times, but it may be said truthfully, I think, that the tendency of modern education has been toward the accumulation of scientific facts rather than toward that philosophic attitude which gives a broad conception of human understanding and the fears and motives of men. In fact it has been said that a philosophic education hinders the investigative spirit. It will be difficult for the profession to change its point of view in an age of rapidly changing conditions, for it is believed that in order to render the greatest service to humanity the spirit of research must continue to be an important part of our field of endeavor.

Are Some of the Added Costs Justifiable?— During the past three decades we have seen the development of the clinical x-ray, the electrocardiograph, and the blood pressure instrument; the Wassermann reaction has come into general use, while basal metabolism determinations and blood chemistry methods have proven valuable aids in precise diagnosis. The younger physicians of our day may question the results obtained by the preceding generation of physicians who were compelled to do their work without these aids. It may surprise many of them to know that the clinicians and teachers of that day were able to discern, many times with great accuracy, the same conditions which confront us today. They were able to do so because in order to succeed they had developed their powers of observation and utilized their five senses to the fullest degree. We have added to the cost of medical service by the use of these adjuncts in practice, but we have probably also given more intelligent service. The question often arises to what extent may this added cost be justifiable for the large number of people who desire the opinion of the well-trained physician, but who, having constant difficulty to make ends meet, fear the expense. The complaint has frequently entered into lay magazine discussions of the shortcomings of medicine, that the cost of laboratory and accessory charges were excessive since negative findings were so frequently obtained. It has been expected that we should be able to know, if our training had been adequate, without the necessity of resorting to so much clinical investigation. In reply to this complaint it must be acknowledged that many physicians employ these laboratory adjuncts to medical practice, because many patients do not believe they are securing an adequate opinion without them; while others employ them because of fear, a defense reaction on the part of the physician that if all modern methods are not used, criticism will be leveled by his patients, their friends or his colleagues at his lack of thoroughness. Patients are many times to blame for the situation in which they find themselves, because of an undue anxiety that some serious disorder may be overlooked. When all the various investigations have shown that their fears were unfounded they have been prone to regard the expense as unnecessary, and to regard the physician askance who suggested them. This situation could many times

be avoided if patients were willing to abide by the opinion of their family physician as to the necessity for extra consultations or laboratory investigations. It is also true that since the technique of diagnosis is not an exact science, but depends upon judgment based upon investigation, the physician many times finds himself in doubt. Under such circumstances he must use every reasonable aid of possible benefit to patients.

More Frankness Desirable.—That physicians are many times to blame because of lack of frankness in this matter, we will all acknowledge. In our desire to be of greatest possible service to the patient we have had a tendency to be too casual in our attitude, with the result that we have proceeded with examinations entailing expense, which we believed necessary for an adequate expression of opinion, but which to the patient may later appear unjustifiable. I have recently reviewed two hundred case records of patients who have appeared for examination and have noted, in a large percentage, that the average physician should have been able to determine the essential disturbance by simple means, such as a short history, the physical examination, and the routine blood and urine tests. It would be a good rule to establish in any clinic, regardless of the possibility of criticism, that when the working diagnosis is apparent from the history and physical examination, including the essential blood and urine tests, no other investigations would be employed without explanation if, by so doing, additional expense was incurred.

Undue Emphasis on History Taking.—I have been impressed at the time consumed in some clinics with the lengthy history and elaborate reports filled with negative findings which give the appearance of thoroughness, but which may overlook some important fact brought out in a few minutes of inquiry. Ten minutes of history by the physician who is to make the physical examination may be worth more than ten typewritten sheets of unessential detail. The important point is that elaboration of detail and time mean expense in any organization. Unnecessary detail on paper can never take the place of an alert mind having heed to the various possibilities as he hears the complaint; nor can laboratory procedures be more than helpful adjuncts to the history and physical examination. Each of us has his own method, imperfect though it is. If it suffices for our needs, states the essential facts, and is available as a permanent record, it serves all useful purposes and is economically more sound, although perhaps less impressive, than a compilation of negative findings. Unfortunately we many times remain ignorant of our own failures.

We may pass over many inconsistencies in the criticisms which are offered as to our methods, since they are based on misunderstanding. Patients generally have little conception of the steps which may be necessary to reach an opinion adequate for their future guidance in health matters. Their education has not allowed them to keep up

with the progress of medicine as consistently as it has allowed them to maintain interest in the new cars on the market. This is what makes the extension of knowledge in the field of preventive medicine so difficult, since a discussion of possible illness with the average well person implies a tribulation with which is associated, in his mind, all of the allied services of hospital, nursing, and medical care. On the other hand, a discussion of the pleasant things in life adds interest and enjoyment. This is perfectly consistent with human nature and we cannot hope or expect to change it. It may sound logical as an argument to those who talk about the costs of illness, to point out that three times as much is spent annually by our people for candy, soft drinks, ice cream, and gum as for medical care, but it does not offer comfort to the stricken man who is feeling oppressed at his unexpected hospital and surgical bills. The costs for the luxuries are spread evenly over the entire population, while the costs of hospital service and medical care are borne only by the unfortunates whose struggle in many instances has found them unprepared for the emergency. As stated so aptly by Carlyle in one of his essays, "The healthy know not of their health, but only the sick."

We should continue our efforts in preventive medicine through education, and in the attempt to do our part in social betterment we should so govern our practice as to leave no room for doubt in the minds of the public that the medical profession is making every endeavor to lessen the costs of illness.

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DISCUSSION

A. L. BLOOMFIELD, M. D. (Stanford Hospital, San Francisco).—It is always a pleasure to read the papers of my friend Doctor Stone, tinged though they often are by a note of pessimism. Doctor Stone is a keen critic, and in the present instance his views are, of course, essentially sound. With the first part of his address, which deals with questions relating to the costs of medical care, everyone will surely agree, at least in principle if not in detail. But his views on the training of physicians I cannot altogether share. Here Doctor Stone revives a somewhat time-worn dispute as to whether medical schools should produce "scientists" and "specialists" on the one hand, or simple practitioners on the other. As far as we know, there are fundamentally only two types of doctors: one, the honest, critical, conscientious, industrious ones, and two, the lazy, slipshod, or unsound ones. Whether one is to be a general practitioner in the country or an urban specialist, the best experience and the most critical exacting training are none too good. If anything, the former type of man needs more wits, skill, imagination, ingenuity, fortitude, and learning than the one who will devote himself to a narrow technical specialty. Nor do we feel sure that attempts at purposeful training of students in the nonmedical phases

of successful practice is sound or wise. If a man is natively endowed with kindness, sympathy, and tact, his patients will love him; to try artificially to decorate him with a spurious unction is hardly the function of an institute of learning. Rather should the schools try to instil into their graduates a keen critical faculty which will, in the end, guide them safely through the intricacies of medical practice.

Doctor Stone adds no fundamentally new concept to the philosophy of his subject, but he stimulates us. With the autocrat of the breakfast table we may say, "Would not the highways of life be indeed dry and dusty if we did not from time to time drive through them the watering wagons of conversation with the valves wide open?"

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WILLIAM J. KERR, M. D. (University of California Medical School, San Francisco).—It gives me great pleasure to discuss Doctor Stone's paper because he has clearly enunciated the points which are under discussion at the present time and has brought to bear in his discussion conclusions which have been drawn from many years of practice. There is no doubt that illness falls heavily on the sick and that very few can afford to be sick under the present circumstances. Doctor Stone has clearly set forth some of the factors which have contributed to the peculiar state of affairs. The chief ones, to my mind, are (1) the great growth in a number of special workers which we now provide for the care of the sick, that is, doctors, nurses, dietitians, physiotherapists, technicians, etc.; (2) the lack of judgment upon the part of a great number of practicing physicians who feel that they must make a thorough and complete examination of every patient who comes under their care. This results in needless expense and inconvenience on the part of the patient and very often adds nothing to the diagnosis in simple and uncomplicated diseases. If the physician will only explain to his patient that the diagnosis is readily established in his particular case without the necessity of additional expensive and doubtfully useful procedures, it is very seldom that the patient will not readily appreciate the straightforwardness and integrity of the physician; and (3) the attitude of the patient and his family when they make demands for expensive services which are not necessarily required on the mistaken idea that they are going to have more adequate attention or that they will hold up their heads with their friends and acquaintances by maintaining a higher social standard than they can afford. Those who ask that no expense be spared when one of their friends or relatives is sick are usually the last to meet their obligations when they fall due. There is a growing tendency among people in the larger centers, and to some extent in the outlying communities, to demand the services of the specialist on all occasions. Indeed, it has gone so far in many cities that the patient will take his ears to one doctor, his eyes to another, his teeth to another, his heart to another, his lungs to still another, and so on *ad infinitum*. These patients go about from one doctor to another, usually without letting one know what the other one is doing. This makes service most expensive to them. Some way should be found to educate people generally to the idea that the general practitioner should be their first line of defense, and in the larger centers this supervision might be entrusted to the internist or the pediatrician, as it is done particularly well in England.

The medical profession is at fault in that we have not shown more leadership in public health. Doctor Stone refers to some of the trends in medical education in the direction of more specialization and more thorough training in the so-called fundamental sciences. He also deplores the lack of training in the business side of medicine in preparing the student for

his life's work. There are very few schools in the United States where a definite attempt is being made to train research workers and teachers in medicine. Most of the schools are committed to a policy of training students who expect to take their places in the practice of medicine. This is particularly true of state universities or others maintained at public expense. Only a small percentage of students in any class can be expected to become research workers of distinction or to develop as outstanding teachers of medicine. At the University of California Medical School, over a period of many years, we have tried to acquaint the student with the problems of practice by having on our staff a large number of men who are actively engaged in practice, by bringing our successful alumni back to the school for seminars and other contacts with the students, and by sending our students to the country to spend a few weeks with some of the outstanding practitioners. We are making a distinct effort to have the student see the practice of medicine as an art as well as a science, and I think if one will make a survey of the recent graduates, he will find that they are quite able to take their places in society and to adapt themselves to the new demands which are made upon them. At the present time there is probably no field of investigation which is more likely to be fruitful than in the application of many of the fundamental principles which have been already worked out in the laboratories. It is from the man who is out in practice and who is trained in the fundamentals and has learned how to study the materials at hand that we can expect to have additions made to our knowledge in the future. The methods of study at the bedside need not be any different from those in the laboratory or in the hospital wards of a teaching institution.

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B. O. RAULSTON, M. D. (709 Westlake Professional Building, Los Angeles).—It is encouraging indeed to have such a message as is presented here from a physician who is known to his colleagues as one who recognizes clearly the problems involved in the practice of medicine today, and who in his daily work gives sincere attention to methods of overcoming the difficulties encountered in giving the best care to the sick.

As is clearly set forth in Doctor Stone's message, the evils in the practice of medicine today are not one-sided. It behooves the medical profession to correct the wrongs within its own ranks before it attempts to change the attitude of the laity toward the profession. It is not easy to change the habits and practices of people that are as mature as the average practicing physician. If there is the necessity for reform in medical practice, this will be brought about only through training medical students, if the reform is to come through the profession itself. And what could be more effective in this regard than the proper selection of medical students? Aside from the academic records of applicants for admission to the medical school, there should be a careful study of the student's record from the standpoint of character, ideals, and influences that have prompted him to select the medical profession as a life work. Someone with outstanding ability as a judge in such matters should interview each prospective student personally, leisurely, and if need be on more than one occasion, in an effort to determine his fitness for becoming a physician, aside from his ability from the purely academic standpoint. The average medical school of today has sufficient equipment and facility for training students. The faculties are made up of men capable of guiding students in their training, but no amount of facility, instruction, or guidance will change the career of a man who goes into the profession with the intention of making it primarily a business.

FRACTURES OF THE KNEE—"BUMPER TYPE"*

By N. AUSTIN CARY, M. D.
Oakland

DISCUSSION by George H. Sanderson, M. D., Stockton;
E. W. Cleary, M. D., San Francisco.

"BUMPER fractures of the knee" is the term applied to designate a complex lesion occurring when a person is struck by an automobile bumper or otherwise with sufficient force to produce a comminuted fracture of the head of the fibula—a fracture of the external tuberosity of the tibia with an avulsion of the tibiofibular joint and a rupture of the external lateral ligament of the knee joint.

MATERIAL FOR THIS STUDY

A series of forty-five cases is recorded in which the findings are fairly constant, conveying to us the same mental picture as do the terms Colles' and Pott's for the wrist and ankle. We acknowledge that these findings are at times associated with more extensive injury, as above outlined, but have found that the treatment carried out on "bumper fractures" should be basically followed in these as well. The more commonly associated injuries are fracture of both tuberosities of the tibia, the condyles of the femur, the upper end of the tibia, and rarely a rupture of the crucial ligaments, fracture of the tibial spine, and injury to the semilunar cartilages.

In the primary survey of our patients injured by being struck down by motor vehicles, we selected the knee injury cases and added thereto all similar cases from other causes—a few were found; one had sustained a classic fracture in a fall from a stepladder; another fell on the ice at a skating rink, with the limb bent beneath her; a third fell from a tree. This survey was to ascertain the ultimate end results of all fractures involving the knee joint and its associate structures, and to devise a way of reduction, if possible, that would reduce the apparent permanent disability and the period of convalescence.

The type producing the greatest degree of permanent disability was found to be a comminution of the upper end of the fibula—the fragments separated and the entire head displaced downward, and to varying degrees backward, with complete avulsion of the tibiofibular articulation and the tearing of its ligaments. The external lateral tuberosity of the tibia is fractured through, the fragment varying in size and shape, the direction of the fracture being fairly constant in a slight oblique to perpendicular direction with reference to the joint surface. It was common to find the fragment to consist of the lateral tuberosity as far medially as the spine of the tibia. This fragment was always displaced downward. The external lateral ligament was assumed to be ruptured and preternatural lateral mobility was a constant finding—in the few operated cases it was found to be so.

In reviewing the mechanics of production, several factors are concerned: first, the method of applying the violence to the lateral surface of the joint; second, the intrinsic factors active in the production of the displacement of fragments.

A CASE IN POINT

The writer had the good fortune to see one of our series receive her injury—while attempting to cross the street she was struck down by an automobile. The bumper of an automobile is on the level with the lower end of the femur to the average individual. The flexing of the knee, which occurs when guarding off a sudden blow, lowers the knee perhaps a few inches, the impact is received upon the lateral surface of the low thigh, an inch or so above the knee joint, the foot is fixed upon the ground or pavement—the body weight is suddenly thrown sideways and forward—the body is rotated—the muscles being set to receive the blow. In this particular case the forearm struck the edge of the radiator—the sharp pointed ornament of the radiator pierced the scalp, cutting an ugly wound—the forearm was broken, as was also the pelvis, as the front wheel of the car passed over her.

ANATOMIC BASIS

The degree of violence does not appear to be sufficient to produce so extensive a fracture in some cases. It is my belief that muscle action plays a very important part in the displacement; however, trauma is necessary as the primary cause. The knee joint is, without doubt, the strongest joint in the body. This statement is corroborated by the infrequency of its dislocation. When in complete extension with all muscles set, it offers the greatest possible resistance to injury. When semi-flexed it offers the greatest degree of movement. With the joint flexed between 165 degrees and 140 degrees, the torso in rotation as in guarding against impending injury, the muscles inserted about the knee joint are placed in a position of powerful action.

The biceps femoris muscle is a powerful leg flexor, being inserted into the head of the fibula and the external lateral tuberosity of the tibia at the joint level. When the joint is flexed it has an upward and backward pull upon its point of insertion; with the joint flexed at 90 degrees or more it has a direct backward pull at the point of insertion.

The peroneus longus muscle arises from the upper end of the fibula just distal to the biceps insertion by a long narrow attachment, and at the same level arises the extensor longus digitorum muscle. The action of these muscles would be downward when in action. Posterior on the head of the fibula and external tuberosity of the tibia is the origin of the powerful soleus muscle. Its action exerts a downward and backward pull.

The greatest displacing factor is the pull upon the head of the fibula by the biceps femoris muscle when the knee is in 160 degrees of flexion, and acting under the influence of contraction stimulated by impending injury. When the leg is

* Read before the Industrial Medicine and Surgery Section of the California Medical Association at the fifty-ninth annual session, Del Monte, April 28 to May 1, 1930.



Fig. 1.—Illustrates the method of injury and shows the comparative levels between the automobile bumper and the knee joint of the average person. The fixed position of the foot upon the ground—the flexed knee and the torso rotation. The impact delivered quickly throws the torso forward to the car, with a prompt quick rebound.

in full extension and all muscles placed on tension, the knee-joint is the most stable joint in the body.

HOW THE FRACTURE IS PRODUCED

There is no question but that these fractures are the result of a direct violence delivered in a manner to cause fracture through trauma, leverage, and muscle action, producing at the same time a rupture of the external lateral ligament. The displacement of the fragments, we believe, is the result of pressure on the lateral femoral condyle and muscle pull of sufficient magnitude to avulse the tibiofibular joint and complete or increase the separation of the fibers of the external lateral ligament.

COMMENT

In the forty-five cases here reported there was rarely found any severe injury to the structures of the interior of the knee joint—that is, the cartilages, the crucial ligaments, the synovia, and the synovial sacs. The amount of effusion into the joint proper was very small and surprisingly small in the synovial sacs—no more than one sees with mild sprains of the ligaments of the knee joint. No preternatural anteroposterior movement could be demonstrated in the last twelve cases observed. A point unrecorded in our early cases, indicating a rupture of the crucial ligaments.

The absence of evidence of injury to the semilunar cartilage offers the greatest surprise of all. In none of the early cases operated could we find evidence of injury to the cartilages. This is best explained by the fact that the external semilunar cartilage has a very loose attachment and a much greater freedom of movement than the internal. The much greater liability of the internal cartilage to injury finds its explanation in the close relation and connection to the capsule by reason of which it is likely to be displaced or detached whenever the internal lateral ligament is injured; for the opposite reason the external apparently escapes injury.

The external lateral ligament is longer than the internal and runs from the lateral surface of the external condyle of the femur to a broad solid attachment to the head of the fibula. It is practically entirely separated from the capsule and the cartilage; for this reason there is but slight chance that the capsule will be torn, thus producing a large hemorrhagic effusion into the joint proper. The bursae of the joint are so placed as to escape direct injury and do not become distended with fluid.

The age incidence is as follows:

70 to 80.....	2
60 to 70.....	8
50 to 60.....	17
40 to 50.....	4
30 to 40.....	10
20 to 30.....	2
10 to 20.....	2
Total.....	45

The age from forty to eighty furnished thirty-one of the cases. The youngest patient was nineteen years of age. This patient had had a pre-existing poliomyelitis with residual paralysis of the injured leg, and was one of the five operated patients in the group. I do not believe the surgery done on this patient was of any benefit in replacing the displaced bone fragments, but a reconstruction of his external lateral ligament did increase the stability of the joint. The ligament reconstruction done on this patient consisted of turning down a strip of fascia lata of sufficient size and length to be carried through an opening made in the upper end of the fibula distal to the fracture, and carried back up to the external condyle of the femur; sufficient tension is applied to assure firm pressure. This patient was recently seen and was found to have a very stable limb, which he thinks is better than before his injury; his extension is complete and his flexion 90 degrees.

There was no associated fracture in thirty-six patients—the lower one-third of the opposite tibia and fibula was observed in two; the radius and ulna of the opposite side in two, and on the same side in two; the pelvis was fractured in two, and the opposite femur in one.

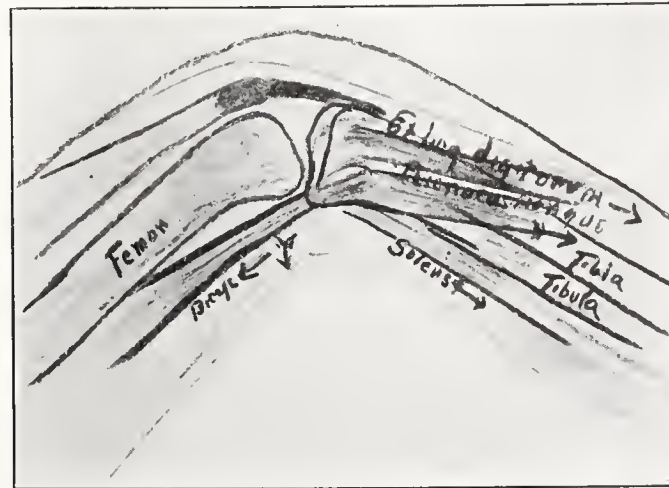


Fig. 2.—A drawing showing the direction of pull of the muscles.



Fig. 3.—A tracing of an x-ray made in three positions of a typical bumper fracture of the knee, showing all of the factors outlined, and observed forty-five times in almost typical duplication in a series of knee joint injuries.

The period of disability was very difficult to determine. The public liability and industrial cases especially gave longer periods than the others. The younger the patient the shorter the period. The minimum period of convalescence was six months, and reports received from about 50 per cent of the first thirty-five patients showed continued complaints of pain and easy fatigue, with limited movement in all. The maximum period of disability was conservatively fixed at thirty-six months.

The postinjury complications, aside from the above complaint, were as follows: One patient had been operated four years after injury for an osteochondritis dessicans, and several bodies removed; movement was diminished after this operation, but the pain relieved. One had been operated for a chronic villus arthritis, and a complete and satisfactory synovectomy done.

The evidence collected strongly indicated that a fracture of this type gives a permanent disability in all patients over sixty years of age of approximately 50 per cent, as far as the knee joint is concerned, preëxisting osteo-arthritis and chronic synovial thickening being the principal associated findings in these. In individuals from forty to sixty, this percentage is reduced 25 per cent, and under forty the joint may be functionally good, but with the stability impaired. A young man of nineteen, examined five years after injury, showed the knee to have a full range of movement, with only moderate lateral mobility, recurrences of pain and swelling developing frequently if the knee was subjected to any degree of strain.

With the above facts before us, we were convinced that the disability and long convalescence was due to the failure in reduction. Traction, hand molding, operation, splints, and special apparatus had not given any encouragement. A plan of reduction was then decided upon and applied

with good success in six patients. A modification used on four additional patients is as follows:

MODIFIED METHOD OF REDUCTION

The earlier the reduction the better the result obtained. Ether anesthesia is not necessary; some of the milder analgesias now in vogue will suffice; we prefer to use nitrous oxid. Carefully made roentgenographs should be before you, made in true anteroposterior, lateral and semilateral positions, for these fix the degree of displacement carefully in your mind. The equipment necessary is a firm table (we now wheel the patient into the cast room on a gurney); two flat sand bags; a piece of saddler's felt six inches square and of standard thickness; and a hard rubber automobile-tire hammer; stockinet of proper size, and plaster bandage materials. One assistant is necessary.

The anesthetized patient is now turned upon the sound side; the knees are flexed from 155 to 165 degrees. This position will completely relax the biceps femoris and to a certain degree the soleus peroneous longus and longus digitorum muscles.

A sand bag is now placed between the knee and ankle, the assistant exerting pressure upon the limbs to keep them in proper alignment.

The operator stands at the back of the patient at the knee level. With the thumb and index finger of his major hand he locates the head of the fibula, which is displaced downward and backward, and then gently but firmly forces the fragmented head of the fibula upward and outward. This may be greatly aided if the assistant will gently rock and at the same time rotate the limb. This manipulation is continued until no additional replacement can be obtained, the fibula being held in place with the minor hand. The felt is now folded on itself and placed over the head of the fibula and lateral tuberosity of the tibia and held in place by an assistant. The hold on the fibula by the operator is not relaxed, but the fingers are



Fig. 4.—The first blow struck is obliquely upward and inward so as to force the fragment of the tibia upward and inward. The second and third blows should be square to force the tibia fragment inward (toward the mid-line).



Fig. 5.—The felt is removed, the left hand encircles the fracture level firmly, the ankle is grasped with the right hand and the knee is then gently, with a few jerking movements, forced in complete flexion.

sufficiently displaced to permit contact of the felt onto the area to be pounded.

The hammer is grasped with the major hand and raised to the shoulder level of the operator. The first blow struck is obliquely upward and inward so as to force the fragment of the tibia upward and inward. The second and third blows should be square to force the tibia fragment inward (toward the mid-line). The felt is removed, the left hand encircles the fracture level firmly, the ankle is grasped with the right hand and the knee is then gently, and with a few jerking movements, forced into complete flexion. This movement will force the overcorrected fragment into impaction. We would caution here against undue roughness of this last manipulation, as the articular cartilage of the external condyle of the femur might be injured by the sharp edges of the tibial fragment, with possibilities of producing a permanent and irreparable damage to the cartilage and leading to an enchondritis dessicans.

The limb is now gently returned to about 150 degrees of flexion and one layer of stockinet or a thin layer of sheet wadding applied. The patient is returned to the back, the assistant holding the leg in flexion, heel resting on the table, and a firm plaster of paris dressing applied from the groin to just above the ankle (the foot is included if the findings are those of a bumper fracture plus). The cast is gently moulded about the patella, avoiding undue pressure. Bear in mind the relation of the peroneal nerve to the head of the fibula in your reduction, avoid striking it in pounding and pressing it with your cast.

POST-REDUCTION CARE

Bed rest for four weeks is used, but up to back rest a few days after reduction. The leg is kept elevated for seven to ten days to prevent gravity swelling. In three weeks the cast is bivalved, the anterior one-half is discarded, and the posterior is used for a splint. Radiant heat and light friction massage is instituted once or twice daily, as condition will permit. Light passive movement is also given. Special attention is directed to the training and toning of the quadriceps group to

keep up good normal tone. This the patient is instructed to do three days after the reduction. This muscle loses tone very rapidly in any leg injury and seriously impedes convalescence.

In from five to seven weeks the splint is removed and flexion by gravity is encouraged, first, by bending over a folded pillow and then over the edge of the bed. About 90 degrees of movement is usually present at the first attempt at bending, or is rapidly obtained.

Weight bearing is discouraged until the ninth to the eleventh week, depending upon the age of the patient, and then only when aided by crutches. We have tried earlier movement and weight bearing, but find that too early weight bearing is to be discouraged for two reasons: first, pressure causes a downward displacement of the soft callus and fragment; second, a soft tissue swelling develops that is quite distressing and discouraging to the patient.

SUMMARY

1. "Bumper fractures" of the knee is a term applied to a group of injuries which we have found to be as typical as a Colles' or Pott's fracture.

2. Complete reduction is just as essential for a stable joint with good function as is a complete reduction of a Colles' or Pott's fracture.

3. The method outlined we have found very satisfactory to date. No special skill is required to obtain reduction. Caution is directed to a careful consideration of the peroneal nerve and to avoid rough pounding.

4. The period of disability has been reduced one-half the usual time required, and permanent disabilities have been greatly reduced.

2939 Summit Street.

DISCUSSION

GEORGE H. SANDERSON, M. D. (809 Medico-Dental Building, Stockton).—I wish to compliment Doctor Cary on his contribution to our knowledge of fractures below the knee. His term "bumper fracture" is well chosen and serves nicely for purposes of classification.

Of course, it is true that other fractures may occur as a result of being struck by an automobile bumper, and it is also true that fractures with all the charac-

teristics outlined by Doctor Cary may occur from entirely different modes of injury. For instance, I have seen two cases lately of exactly the fracture described—one in a young man thrown off a pile of sacks by an electric shock, and the other in an elderly woman who slipped off a stool and fell while cleaning her refrigerator. In my opinion, this does not detract a bit from the usefulness of Doctor Cary's term, as it fixes the fracture group in our minds descriptively and mentions its most common cause. It is much like "chauffeur's fracture," being applied to fracture of the upper third of the left ulna with dislocation of the radial head forward, usually due to accidents while driving with the left arm out the window of a closed car, although the same injury may result from a wrestling match, a fight, or what not.

I think Doctor Cary's treatment of these fractures is most ingenious, and I certainly intend to try the method. I have heretofore used traction and manual manipulation, and when this did not effect a satisfactory reduction have used a clamp as described by Böhler. I have successfully used an ordinary carpenter's wood clamp padded with felt, and cannot see but that it will work as well as the specially made Böhler os-calcis clamp.

Doctor Cary's description of the mechanism of this fracture after his experience in an exceptionally large series of fracture cases is excellent, and will be a great help to those who have to treat in the future this group of fractures, the results with which have heretofore been rather unfavorable as regards length of time of disability and permanent impairment of function.

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E. W. CLEARY, (490 Post Street, San Francisco).—I have seen quite a number of patients who had sustained fractures corresponding to the description of the lesions which Doctor Cary has named "bumper fractures." I can bear witness that these injuries produce severe permanent disability unless reduced promptly. Reduction is not often easily accomplished. If not done very soon after the injury, reduction may become impracticable. Skin lesions presenting a contaminated field for operation very often preclude open reduction.

A method of reduction by manipulation and malleting is the procedure of choice. Doctor Cary has evidently developed a system of procedure based upon careful study. Employed with discretion, it should be effective. His results speak for the efficiency of the method in his hands. There is sufficient variation in this general type of injury so that some changes in detail of technique must often be expedient.

RUPTURED BLADDER—A METHOD OF DIAGNOSIS*

REPORT OF CASES

By HARRY W. MARTIN, M. D.
Los Angeles

THE difficulties in diagnosing a ruptured bladder, an injury which formerly almost invariably proved fatal, until recently were very great. Our modern mode of living, with the increasing number of injuries resulting from automobile, airplane, and other machine-age traumatic accidents, many of which accidents are accompanied by fracture of the pelvis, has been responsible in part for the increasing frequency with which bladder rupture is nowadays encountered.

* Chairman's address, Urology Section of the California Medical Association at the sixtieth annual session, San Francisco, April 27-30, 1931.

* The author is indebted to Dr. Lyle C. Craig and Dr. George O. Berg of Los Angeles for coöperation in compiling data for this paper.

All medical and surgical men, but especially urologists, have gone through the anxiety incident to the treatment of a patient suffering from a bladder rupture. Any aid to better control of this serious lesion is, therefore, welcome. The diagnostic procedure I am bringing to your attention is relatively harmless and as nearly infallible as any medical procedure can be and, still more important, it provides an immediate diagnosis without waiting hours for the development of dangerous symptoms. A case in point may be in order.

Report of Case.—On the night of April 24, 1930, a man of sixty-seven was admitted to the Los Angeles County General Hospital. He had been jammed against a support by a sliding gate, and as a result had a fractured pelvis. The patient was able to urinate, but with some difficulty. A few red cells, with pus and colon bacilli, were found in the catheterized urine. On filling the bladder all the injected fluid, except four cubic centimeters, was recovered. The question which promptly arose was that of operation. Was the condition confronting us a ruptured bladder, or were the patient's difficulties the result of a bladder-neck obstruction aggravated by the injury? Because we felt certain of our diagnosis we operated. We found the rupture of the bladder, repaired it, and after three months in the hospital on a Bradford frame the man is now alive and well.

COMMENT

Whenever blood, microscopic or macroscopic, is seen in the urine after an accidental trauma, the life of the patient as well as the reputation of the doctor may be protected if this simple procedure is carried out while the patient is still on the x-ray table, where he should have been brought to diagnose his bone injury. This work can also be done in bed, using the portable x-ray, for the Bucky diaphragm is not necessary.

The following signs and symptoms, when found in a patient who has been injured, should place the physician on his guard: collapse, inability to void, vesical tenesmus, and pain over the bladder and in the lower inguinal regions. A significant sign is inguinal or flank dullness which will, of course, depend on the amount of fluid present in the abdomen.

If the rupture is extraperitoneal, then depending on the time elapsed since the injury, the picture of deep extravasation may be seen, with cellulitis, necrosis, and gangrene present.

Injecting air into the bladder and x-ray examination of the abdomen, to attempt to demonstrate air up under the liver or elsewhere in the abdominal cavity, was reported some years ago. That particular method has also been used in attempts to diagnose extraperitoneal rupture by demonstrating crepitus in the tissues. In our own experience we have not been satisfied with the air injection-x-ray procedures.

METHOD USED AT LOS ANGELES COUNTY GENERAL HOSPITAL

The method described below has been used by us in the treatment of patients on our service at the Los Angeles County General Hospital, and



Fig. 1.—Showing the irregular distribution of sodium iodid medium.



Fig. 2.—Showing retained sodium iodid medium.

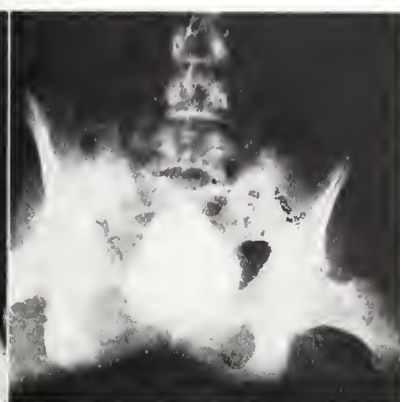


Fig. 3.—Cystogram of bladder after recovery.

because of its results we are tempted to advise its trial. Steps in the procedure are as follows:

The patient should have an opportunity to void urine. The urine, if voided, should be examined microscopically for blood. If the patient is unable to void, a catheter is passed and the bladder urine is drawn off. If a catheter cannot be passed, a urethrogram should be taken to demonstrate the nature of the urethral complication or injury. The bladder should then be filled with sterile five per cent sodium iodid solution which has been boiled. The bladder should be filled to the point of discomfort, or if this sensation is not reached we stop at 300 cubic centimeters, the amount injected having been carefully noted. An x-ray picture should then be taken, the patient being so placed that the entire bladder outline is shown on the plate. The sodium iodid solution should then be permitted to drain out of the bladder without any pressure being exerted, after which another picture should

be taken. Air may be injected now in order to get a contrast cystogram. This will show the amount, and location of any of the extravasated



Fig. 4.—Characteristic appearance of intestinal obstruction under x-ray.

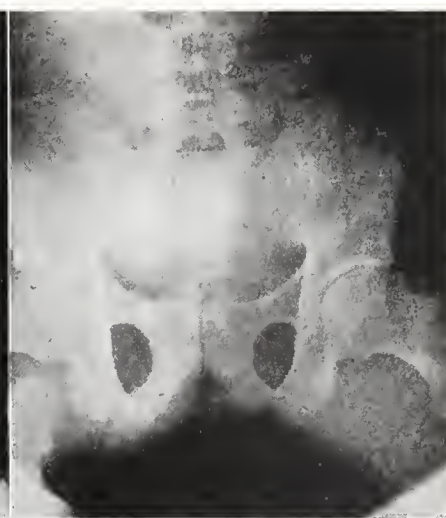


Fig. 5.—Shows that the sodium iodid solution had escaped from the bladder.

medium, and thus another bit of evidence will be obtained.

When the pictures are developed we will either see the regular line of a normal bladder or a distorted, indistinct picture with extravasated iodid helping to outline the ruptured bladder.

The diagnosis having been made, the indications for subsequent steps are clear. Using this method we believe that ordinarily no harm can come to the patient, because if the urinary tract is intact the medium cannot escape; and if it does escape it will do no harm as it is readily tolerated by the tissues. Furthermore, complete and extensive surgical drainage is immediately secured by operative procedure.

Uroselectan and skiodan may be used if desired. These may be administered by the intravenous route or the solutions may be injected in the same manner as the sodium iodid solution. If there



Fig. 7.—Shows a slightly irregular bladder in its lower margins with some distortion. It also shows the escape of four cubic centimeters of sodium iodid solution, which is confirmed by the contrast picture, Fig. 8.



Fig. 8.—Contrast picture to Fig. 7.

is any disinclination to the use of sodium iodid, these other substances may be substituted.

REPORT OF CASES

CASE 1 (FIGS. 1, 2, AND 3).—F. C., female, was the victim of an automobile accident, suffering a fractured pelvis and several fractured ribs. The patient was unable to void. Examinations as above outlined. Figure 1 shows the irregular distribution of the sodium iodid medium, characteristic of an extraperitoneal rupture of the bladder. Figure 2 shows the retained medium. Figure 3 is a cystogram of her bladder after recovery.

CASE 2 (FIGS. 4 AND 5).—A. T., male, colored. This patient had a history of painful and rough sounding previous to admission to the hospital. He showed dullness in both flanks and a distended abdomen, with symptoms of intestinal obstruction. Figure 4 shows the character-



Fig. 11.—Shows a severe fracture of the pelvis and the characteristic appearance of an extraperitoneal rupture of the bladder.

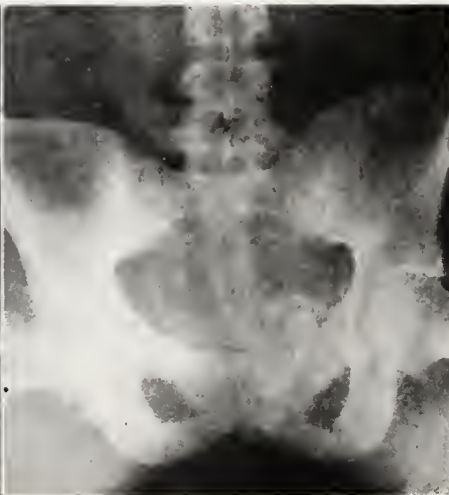


Fig. 12.—Confirms the extraperitoneal distribution of the iodid solution.

istic appearance of intestinal obstruction under x-ray. Figure 5 shows that the sodium iodid solution had escaped from the bladder. In view of the obstruction and the ragged distribution, the rupture was diagnosed as being intraperitoneal, which was confirmed by operation.

CASE 3 (FIGS. 6 AND 7).—F. W., male. This is the case report first given in the text. Figure 6, which is not here shown, shows a slightly irregular bladder in its lower margins with some distortion, quite probably caused by blood and clots. It also shows the escape of four cubic centimeters of sodium iodid solution, which is confirmed by a contrast picture, Figure 7.

Figures 8 to 13, inclusive, will appear in the reprints.

CASE 4 (FIGS. 8 AND 9).—R. E., male, was in an automobile with five companions when someone decided to turn a corner when the automobile was going approximately sixty miles an hour. His companions were killed outright. This man re-



Fig. 9.—Shows a small, irregular, torn bladder.



Fig. 10.—Shows sodium iodid in the abdominal cavity.

ceived a fractured pelvis and several other major fractures. Our examination showed him to have an intraperitoneal rupture of the bladder. Figure 8 shows a small, irregular, torn bladder. Having injected 300 cubic centimeters of sodium iodid solution, on seeing such a small bladder we suspected an intraperitoneal rupture. Figure 9 shows sodium iodid in the abdominal cavity.

CASE 5 (FIGS. 10 AND 11).—M. N., female. Figure 10 shows a severe fracture of the pelvis and the characteristic appearance of an extraperitoneal rupture of the bladder. This patient had eleven broken ribs on the right side and six broken ribs on the left side. Figure 11 confirms the extraperitoneal distribution of the iodid solution.

CASE 6 (FIGS. 12 AND 13).—A. H., female. This patient was the victim of an automobile accident and sustained a fracture of the pelvis. On x-ray examination the filled bladder was seen. Figure 12 shows that the injected medium had escaped and had penetrated the perivesical space. A contrast picture showed the distribution, as seen in Figure 13.

6253 Hollywood Boulevard.



Fig. 13.—Shows the injected medium escaped and penetrating the perivesical space.



Fig. 14.—Contrast picture showing the distribution as seen in Fig. 13.

ORGANIZED MEDICAL CARE*

ITS RELATION TO PERSONS OF LOW INCOME

By RAY LYMAN WILBUR, M. D.

AMONG 4,560 families who kept records of their total medical charges during a year we found a wide range of charges per family. There were 1,788 of these families whose total annual incomes for the year were under \$2,000 per family. Forty per cent of these low-income families incurred medical costs for the entire family of less than \$25 for the year, 20 per cent had charges from \$25 to \$50, 21 per cent from \$50 to \$100, 14 per cent \$100 to \$250, 4 per cent \$250 to \$500, 1 per cent \$500 to \$1,000, and .2 per cent \$1,000 to \$2,500.

"Eighty-one per cent of this group had bills of less than \$100 for the year, and, we may assume, could pay their medical charges without serious hardship, but the remaining 19 per cent must impair their living standards, draw on savings or borrow money if they are to meet their expenses. The 81 per cent paid only 36 per cent of the total bill of the entire group, while the 19 per cent were faced with 64 per cent of the amount, making the average per family eight times as high in the latter group.

"No well-informed student of medical economics believes for a moment that the patient's difficulty in paying medical costs is primarily or basically due to excessive fees on the part of physicians and other practitioners. There are a few 'gougers' in medicine, of course, just as there are in all walks of life, but any impartial analysis of the incomes of physicians leads to the conclusion that in view of the time devoted to training and education, and the responsibilities assumed, there is no general overpayment of practitioners.

INCOME OF PHYSICIANS

"Let me give you a few facts about professional incomes. The 79 practicing physicians in San Joaquin County, California, had a median net income in 1929 of \$5,500; in Philadelphia 245 representative physicians reported net incomes for 1929 with a median of \$3,400, and 30 physicians in Shelby County, Indiana, had a median income in 1928 of \$3,100.

"Some unpublished data regarding physicians south of the Mason-Dixon Line indicate that conditions in certain large areas of the South are such that large numbers of physicians in 1930 received net incomes of less than \$1,000. On the average the general practitioners reporting have net incomes about half as large as the specialists. Dentists in twenty states reported median net incomes for 1929 of \$4,000.

ECONOMIC ASPECTS OF PROBLEM

"If we organize our talent for producing medical services economically and efficiently we shall

undoubtedly find that the cost is not too great for our present society. For inadequate medical services, produced with all the wastes inherent in individualized practice, we now pay about \$30 per capita annually. With organized, coördinated effort we should be able to provide ample medical services of good quality to all the people and with proper remuneration to the professional personnel for costs of somewhere between \$20 and \$50 per capita per year.

"Whatever the figure may be, the real nub of the economic problem is to determine whether the cost of good comprehensive medical care is within the reach of our people. If all but the indigent can pay the price we merely face the technical task of devising suitable methods of collecting the charges.

"On the other hand, if we find that there are substantial groups of our people who, though not indigent, nevertheless have so little surplus over the bare essentials of life that they cannot reasonably be expected to pay the cost of decent medical service, economically provided, we face a different and somewhat more vexing problem. Our sympathy, our sense of fair play, and our desire for self-protection and self-preservation all unite in demanding that we reject emphatically any suggestion that these people should be given an inferior service—a service that we cannot label 'good in quality and reasonably adequate in quantity.'

"If we expect charity to meet the cost we are faced with the fact that charity, when obviously labeled as such, is distasteful to self-respecting people and is too erratic and inadequate to meet such a large national problem. May we, in such cases, turn to the local and perhaps the state government and expect that it will meet a sufficient share of the cost to bring the charge to individual families within their reach? May we expect that local officials will agree that the protection of the people's health is as important, although not as costly, a social responsibility as the education of their minds? May we assume that methods can be worked out that will enable the local government to help carry the financial burden without placing the mortal main of official red tape or politics on scientific progress and skilled services?

TRENDS IN MEDICAL PRACTICE

"Today there are many trends in medical practice, some of which move along the lines we have been suggesting. In the first place, medicine is increasingly being regarded as a coöperative enterprise. More and more, physicians are practicing in hospitals, where they not only have better facilities than they could provide as individuals, but where they have a constant contact with professional colleagues.

"Clinics and dispensaries have increased prodigiously. Most of them are organized as charitable or semicharitable institutions and restrict their clientele in one way or another. The advantages of group association, however, are so patent that

* From the "United States Daily" of March 19, 1932. Being excerpts from an address by Ray Lyman Wilbur, M. D., former president of Stanford University and now Secretary of the United States Department of the Interior. Doctor Wilbur is chairman of the national Committee on Costs of Medical Care. The excerpts here reprinted are from a recent address before representatives of the Milbank Memorial Fund of New York.

private group clinics are developing independent of any charitable tradition. A few of these private group clinics, moreover, are actually located in hospitals, and most of them are closely connected with one or more hospitals.

"There is manifest an increasing public feeling that the health of the community is a major concern of local and state governments. In addition to the traditional services in connection with sanitation, communicable disease control, and vital statistics, departments of public health (in coöperation frequently with departments of education) are supervising the health of school children, even if necessary to the extent of correcting their physical defects, are operating maternal and infant welfare clinics, are providing tuberculosis clinics, sanatoria and preventoria, are offering laboratory services to private physicians, are giving dental treatment particularly to children, and are treating cases of venereal disease and cancer.

"The provision of medical care on a monthly fee or contract basis has been offered by a number of private group clinics. One clinic in Los Angeles has contracted with several employee groups—totaling about 7,500 families—to provide practically complete medical service for \$2 per person per month. With the exception of dentistry and home nursing, practically all medical services are included.

"The Baylor University Hospital in Dallas, Texas, is selling a form of hospital insurance to school teachers and other groups for approximately 50 cents a month. In Grinnell, Iowa, the local hospital offers hospital insurance for \$8 per year.

In Vermont the Brattleboro Mutual Aid Association offers two types of insurance to citizens of that community. Insured patients needing hospital surgery pay the first \$30 of their expenses and then are reimbursed for all expenses, including the surgeon's fee, thereafter up to a maximum of \$300. Patients needing nursing service obtain it at one-third or one-half of the usual fee.

SUMMARY

"In summary, then, I think we can agree that our present methods of providing and paying for medical service are unsatisfactory on four different grounds:

"First and most important, all the people do not obtain all the care which they really need, either quantitatively or qualitatively.

"Second, the cost is unevenly distributed among the people, causing hardship to some, while others pay little or nothing, and this unevenness is of such a character that families of moderate means or of low incomes cannot fully overcome its effects merely by individual family budgeting.

"Third, the incomes of practitioners are frequently so uncertain, irregular, and low as to constitute a grave problem—a problem with social as well as individual consequences.

"Finally, our present methods of providing and paying for medical service are, from the social point of view, wasteful and uneconomic.

"These problems will only be settled when and to the degree that physicians, dentists, public health officers, educators, industrialists, labor leaders, civic workers, hospital trustees and executives, and other persons in positions of authority and influence understand and accept their own individual responsibilities.

"If we can act with courage and vigor at the right moment, we will, I am convinced, be able to inaugurate various improved methods of providing medical care to the American people. We neither desire nor expect a mushroom growth, but we do wish to make available as rapidly as possible more adequate medical service to a larger number of our people.

"No other course of action holds greater promise of enriching American life and benefiting every phase of our national welfare."

CONTRACT PRACTICE*

By R. G. LELAND, M. D.
Chicago, Illinois

Contract practice is not a new development in medical care; it began as an essential feature of many pioneering projects in mining, railroad construction, and lumbering; it is now assuming new forms, becoming highly competitive, using unethical methods and involving a large number of physicians.

Ever since men achieved the first stages of civilization there has been nothing they have refused to do to obtain health when they have been sick. They have been willing to be half drowned, to be buried alive in earth up to their chins, to be pierced with needles and branded with hot irons, to have leeches suck their blood and to swallow vile tasting concoctions—and to pay for all this—in the hope of attaining cure from disease and of regaining health.¹ Now it may be added that many are willing to bargain with the lowest bidder on a contract basis for incomplete and inadequate medical services, and that for only a part of the family, because some solicitor tells them they will receive the best medical care at a ridiculously small sum.

NUCLEUS IS PLANTED FOR CONTRACT PRACTICE

About the middle of the last century two types of medical practice were developed which were destined to be the forerunners of a dangerous, complicated, commercial medical system. One of these types was the Mutual Benevolent Hospital Association, philanthropic in character, having liberal endowments, extensive hospital properties, and hospital staffs of high grade reputable physicians, all organized and maintained for the membership only; the other type was the medical service developed by the railroad, mining, and lumbering companies for their workmen employed in places in advance of or apart from communities with medical facilities. The Mutual Benevolent Hospital Associations were organized to provide for their membership the best obtainable medical services at the most reasonable cost. The mining, railroad, and

* Read before the Annual Congress on Medical Education, Medical Licensure and Hospitals, Chicago, February 16, 1932.

* From the Bureau of Medical Economics, American Medical Association, Chicago, Illinois. Reprinted from the Journal of the American Medical Association, March 5, 1932.

lumbering companies were moved by two factors to provide medical care for their employees: first, because necessary medical services could not be secured otherwise, and, second, to avoid or to minimize the liability that might arise from neglect of medical care and to reduce the loss to the companies in working hours, thus affecting production, because of accidents or illness.

The precedent of such plans, developed by the exigency of the situation, the enactment of state workmen's compensation laws, and the popular lay revolt against the costs of medical care are now used as ample justification for the present systems of contract practice. All the contract plans now operating are essentially forms of sickness insurance. A study now being made by the American Dental Association, from which I shall quote briefly, shows how clear is the trend in the field of contract practice toward sickness insurance:

Workmen's compensation legislation has been an almost invariable forerunner of general sickness insurance. In 1910 no state had such legislation. Today all but four have more or less elaborate systems of protection in this field. There is no agitation for their repeal, and little opposition to their continual extension.

That extension has already made "occupational disease" compensable in several states and more are added annually.² The tendency is clearly described in a recent report of the Industrial Commission of South Dakota: "The original idea of the workmen's compensation law was that of helping the injured worker to bridge over his troubles until he was again able to resume his ordinary labor. But by actions of legislatures, courts, and commissions it is beginning to approach that of a general plan of health and accident insurance."³

About 17,000,000 workers are paid more than \$150,000,000 annually under these laws at present, an amount fully comparable to that expended by many European countries on complete systems of compulsory health insurance. Dentists have been brought under this law in many places and in various capacities.

This legislation gains greatly in significance when it is considered as the foundation and framework of future and vastly more extensive systems of insurance, for it now contains nearly all the features of the more extensive European systems to which physicians and dentists most strenuously object. There is little "free choice of practitioner," professional confidence is not respected, there is a mass of lay interference, the tendency to reduce fees to a minimum is already apparent, and charges of undue influence on professional testimony by employers or insurance companies on one side and by malingerers upon the other are already common.

TYPES OF CONTRACT PRACTICE

The types of contract practice vary according to the organization providing the medical service and the form of contract used. There exist definite conditions under which contract practice is both legitimate and ethical, but these instances cannot be used in defense of unethical, highly competitive, and economically unsound methods used by unscrupulous individuals or groups to further commercial or professional avarice.

The type of contract and the services rendered will therefore depend much on the integrity of those who devise and operate the system and are influenced by both the exigencies that call the system into operation and the motives that underlie its operation.

Contract coverage may be one of three types: (a) for employment connected injuries; (b) for employment connected illness and injuries; (c) for injuries and illness which are either employment connected or which may have no relation to employment.

The types of organizations or groups engaged in contract practice are as follows. It is not possible at this time to enumerate all the companies, associations, groups, and individuals that would fall in each classification.

A. Large corporations:

1. Railroads.
2. Mining companies.
3. Oil companies.
4. Logging and lumber companies.
5. Canneries.
6. Shipbuilding and allied shipping companies.
7. Other manufacturing companies.

B. Mutual benefit associations.

C. Hospital associations.

D. Medical groups.

E. Individual physicians.

F. County medical societies.

G. Hospitals.

H. Newspapers.

I. Coöperative groups.

J. Industrial associations:

1. Mutual benefit associations.
2. Trade unions.

K. Lodges.

Many large corporations own and operate their own hospitals. Physicians are employed by contract and the employees are cared for on a monthly pay roll deduction basis. Some mutual benefit associations also own their own hospital properties and employ physicians in a manner similar to the large corporations, but all this medical service is maintained at the low monthly pay rate for members only. Because of the limited amount of income from members on such low monthly rates, these associations would soon be obliged to discontinue their service were it not for generous endowments left by members and the profit that accrues from hospital care of the public at regular rates.

Hospital associations are misnomers. In most instances they are merely the business offices of groups having medical contracts for sale. These "associations" usually have a few "staff physicians" on salary, but most of the physicians who care for the contract cases are paid on a "piece work" basis. Not infrequently these physicians have no little difficulty in securing payment for services rendered, and then at the amount allowed by some lay business manager whose business it is to deal with the profession as well as with the employers and the employees. It is not uncommon for these czaristic adjusters to dictate to physicians the extent to which their services shall go in an individual case.

Since some of the best medical groups are doing contract practice, naturally the type of service they render is superior to that given by many of the "hospital associations." Even while engaged in contract medicine these medical groups claim that they are not satisfied with this type of practice; but their disavowal of the practice lacks sincerity, since they continue to use all the methods of the system to hold present contracts and to get new ones.

Much of the anxiety on the part of the profession over contract practice has grown out of the methods used by individual physicians in the field. For instance, one organization of this type is owned and operated by one physician with a large number of associates operating in many communities. A copy of the contract used by this physician will be found in the appendix marked T-1.

In one particular instance which comes to mind the owner and operator of the contract plan views medical practice with an extremely cold-blooded business attitude. He appears to have no interest in any form of medical charity; he thinks very poorly of organized medicine; his respect for medical ethics is apparently negligible; he realizes that he is under fire but hopes he will be able to retain his county medical society membership. He thoroughly believes that his system is the only correct one and that all physicians must ultimately solicit business, but he is sure that organized medicine cannot do this. He refuses to give out the details of his plan, stating that it is worth money to him and if described or published would be used by his competitors to his disadvantage. He is honest in the belief that his is the only "scientific medical insurance," but he is operating his system without any supervision by the state insurance department. He admits that his plan would not be successful in agricultural districts, and he prefers not to contract with individuals or with other members of the families of employees, since such contracts require too much bookkeeping and the pay is not assured.

From reliable sources it is reported that this physician has stated that his contract practice is only 40 per cent of his entire business. In this instance, as

in most contract practices, the exemptions (not covered by contract) and the patients not covered by contract but brought in by contract covered individuals help to increase the gross income. This physician is very inflexible in his attitude toward the organized profession and he is determined to influence employers to demand of the state legislature that the present contract system be retained and protected. This attitude is held by many contract physicians.

In an effort to meet the growing competition of contract individuals and medical groups, one or more county medical societies have devised plans to take contracts as organized bodies. These societies were motivated by the desire to furnish to the low income group a medical service at a small cost, to render the same quality of service as that given their regular fee patients, to offer free choice of physician, and to eliminate unfair competition among the physicians in the community. In attempting to solve the problem, the county society has been drawn into using some of the same methods of contract-getting used by other contract groups, viz., the business manager or solicitor. A copy of the type of contract used by one county medical society group will be found in the Appendix marked T-2. It was found impossible to enlist the support of the entire county medical society membership in this project, only about 50 per cent agreeing to the plan.

Hospitals have entered the field of contract practice by assuming the business management of contract solicitation. This form of contract practice is no less devoid of the unethical and undesirable features than the types already mentioned.

A recent venture in contract practice is a plan announced by a western newspaper, a display advertisement of which appeared in an early November, 1931, issue of the paper in question. The advertisement, a reduced reproduction of which appears in the accompanying illustration, says:

Cut the High Cost of Illness!

The [paper] offers its readers a cure for Doctor Bills!

Join the ——— Health Service League. Your subscription to the [paper] plus one dollar Registration Fee—Makes you a member and provides for you and your entire family medical, surgical and hospital care at prices you can really afford to pay.

The [paper] has been working for a long time to make an arrangement which would provide lower medical costs for a high standard of medical service. At last we have it. The ——— Health Service League has been successful in making a satisfactory arrangement with the ——— System to provide the highest type of medical, surgical and hospital service to our readers, 24 hours of the day and every day of the year.

Take your choice of two services:

Service No. 1, medical care at half the usual cost: Service No. 1 assures you and all members of your family the best medical and hospital care in any illness, operation or accident—by competent, chosen physicians, surgeons and specialists—at a fixed scale of fees arranged and approved by the ——— Health Service League. These fees are approximately one-half the fees regularly paid by the suffering public.

Your registration fee of One Dollar places this service at your disposal whenever needed.

There is no red tape. In case of illness, you present your identity card where directed, or call a given telephone number. The result is the best medical care.

Service No. 2, complete medical service at low cost: For \$1.35 paid monthly in advance to the ——— System, registered ——— subscribers are assured medical, surgical and hospital care for ailments and accidents without further charge.

This is the lowest-priced—and best—service of its kind offered by any hospital or medical service organization in the state of ———.

Each member who subscribes for this \$1.35 per month complete medical service is given a printed agreement setting forth the full benefits to be obtained and a list of physicians, surgeons, hospital and other treatment agencies designated and approved by the ——— System and the ——— Health Service League.

Who provides medical and hospital care for me when need arises, you ask? The ——— System—the largest and most successful medical service organization in [state]. Established several years ago, it has provided highly satisfactory medical and hospital care for many thousands of members, including employees of many large industries, in [city].

The ——— System is a complete medical, surgical and hospital service. Its members are provided this complete care by any of more than 200 leading licensed physicians, surgeons and specialists practicing in the various branches of medicine and surgery. Members may choose from an extensive list of doctors, surgeons, hospital and other treatment agencies. You get this list with your membership card.

Every ——— Subscriber may take advantage of this remarkable service. If you are already a subscriber, your agreement to continue having the [paper] delivered at your home or office for one year makes you eligible for either service offered through the ——— Health Service League. If you are not a subscriber, you become eligible for League membership and service by agreeing to take the [paper] by carrier for one year.

No matter where you live in [state], you may avail yourselves of this unusual service. Write or call up the [paper], [telephone number] and a representative of the ——— Health Service League will be glad to explain any detail of the medical and hospital service provided for members.

APPLICATION

——— Health Service League at [address]

I hereby subscribe for the [paper] for one year, to be delivered by carrier at my home, and agree to pay your carrier 45 cents at the end of each month.

For an additional payment of \$1 in advance, you agree to register me with the ——— System, Inc., Ltd., entitling me to either one of the following services provided by that system:

Service No. 1

Medical, surgical and hospital services, for myself and all members of my family, at the reduced schedule of rates as provided by the ——— Health Service League and the ——— System; or

Service No. 2

Medical, surgical and hospital service provided in the agreement of the ——— System, Inc., Ltd., for myself personally, without charge, as long as I pay to the System \$1.35 per month, the reduced rate arranged for me by the [paper].

It is understood and agreed that my membership in the ——— Health Service League, and eligibility for service at the rates quoted under either of the above plans, shall continue only as long as I am a subscriber to the [paper].

I select Service No.

I enclose \$1 for registration.

I (am) (am not) a subscriber to the [paper].

Name

Address

City..... Phone.....

To the Subscriber:

If you do not receive your membership card within five days of making application, please notify the ——— Circulation Manager [telephone no.] [address].

Reach for your scissors now and cut the high cost of illness by clipping this application.

From such a glaring account it would appear that health and medical relief is indeed at the crossroads of the bargain counter. But to those who know, it is perfectly clear that the rates quoted are utterly inadequate to provide any medical services except the barest first aid for minor afflictions. The proposition is thoroughly unsound economically, since to provide complete medical services at such prices would mean swift bankruptcy for any honest and conscientious individual or group.

The most recent venture in contract practice is announced from another section of the country where certain groups of coöperatives in a certain industry are being led into a scheme for cut-rate medical care by a physician not in active practice who defies all medical organizations to interfere with his experiment. This plan is so new that no details of its working can be obtained; suffice it to say that the physician promoter flatly refuses to take into his confidence for council, assistance, or guidance the local medical societies in the territory over which the scheme is to operate.

MUTUAL BENEFIT ASSOCIATIONS AND TRADE UNIONS

Industrial mutual benefit associations and trade unions have not strongly entered the field of contract practice. These organizations have, for the most part, confined their interests in and efforts toward the protection of the income of their members. In some instances, however, sick benefit funds have been established but participation in these funds is usually limited to those cases not entitled to payments under the workmen's compensation laws.

A study of mutual benefit associations recently made by Brundage and reported in *Public Health Reports* shows that an appreciable number of these associations provide some medical service and care to their members.

LODGE PRACTICE

Lodge practice, as usually found, consists in the employment of a physician by a local fraternal organization to serve its members on contract, by salary or for a stipulated sum per member annually. Medical and surgical services and hospital care are provided for members on the basis of a monthly membership fee. In most instances medical and hospital benefits provided by the lodge for its members are contingent on the member using the physicians or hospitals approved and designated by the lodge. It is not known what considerations govern in the selection of physicians and hospital facilities.

Lodge practice assumes its largest proportions in the care of tuberculous and the aged or retired members. Several large institutions for these purposes have been established for many years. Tuberculosis sanatoriums are also maintained by some of the trade unions.

METHODS OF OPERATION AND QUALITY OF SERVICE

Throughout the contract proponent groups there exists a definite fear or obsession lest the organized medical societies object or interfere with contract operations. Likewise, there is a craftiness in business dealings and a circumvention of accepted ethics in many contract plans.

As long as contract practice remained in the field of practical necessity it created little or no alarm. But, as the exigencies of pioneer projects passed, the emergency methods of medical care were not discarded but were retained to become the basis of new schemes to compete with regularly established medical practice. Workmen's compensation laws were passed and funds became available with which to pay for the medical care of the injured employee. These funds, which assured the payment of fees for hundreds of thousands of potential patients, became the envy of the conniving contract cliques. At this point a method was introduced in contract practice similar to pressure selling in the business world.

In the medical profession, in which no ethical individual advertises, he who first adopts the practice, although by so doing he becomes unethical and is marked a quack, wins interest at once with very little expenditure. Certain types of contract schemes would not be successful if contract physicians were obliged to wait until business and industry sought them out for their particular services. Therefore, an advertising method was adopted to carry the message, at first, to organizations having a large number of employees, later to small industries, laundries, garages, business houses, apartment houses, and even individuals. The business agent, manager, capper, adjuster, or solicitor thus became the advertising agent of the contract physician or group. With the incorporation of this element into contract practice methods, pressure of getting business became greater, new groups or associations were formed to enter the contract field, and definite unfair competition with private medical practice was created. It was then a short and easy step to underbidding and misrepresentation to get contracts.

Although it is claimed that the quality of service is as good as can be had anywhere, there is sufficient evidence to show that this is not universally true. Under some contracts, patients are treated by remote control, at long distances. Patients often prefer to pay the family physician to manage a serious illness or to do an operation, rather than to accept the services of the contract physician or staff. It is charged that some contract physicians do as little as possible for their contract patients, since to treat them well would encourage them to demand more treatments, calls, or medicine than are considered necessary by these contract physicians.

Cut the High Cost of Illness!
The Record Offers Its
Readers a Cure for
**DOCTOR
BILLS!**

JOIN THE
**Record Health
Service League**

Your subscription to The Record—plus One Dollar Registration Fee—Makes you a member and provides for YOU and YOUR ENTIRE FAMILY medical, surgical and hospital care at prices you can REALLY AFFORD to pay.

The Los Angeles Record has been working for a long time to make an arrangement which would provide lower medical costs for a high standard of medical service. At last we have it. The Record Health Service League has been successful in making a satisfactory arrangement with the Pacific Life Extension and Hospital Service System to provide the highest type of medical, surgical and hospital service to our readers, 24 hours of the day and every day of the year.

Take Your Choice of Two Services:

SERVICE NO. 1
**Medical Care at
Half the Usual Cost**

Service No. 1 assures you and all members of your family the best medical and hospital care in any illness, operation or accident—by competent, chosen physicians, surgeons and specialists—at a fixed scale of fees arranged and approved by the Record Health Service League. These fees are approximately one-half the fees regularly paid by the suffering public.

Your registration fee of One Dollar places this service at your disposal whenever needed.

There is no red tape. In case of illness, you present your identity card where directed, or call a given telephone number. The result is the best medical care.

SERVICE NO. 2
**Complete Medical
Service at Low Cost**

For \$1.35 paid monthly in advance to the Pacific Life Extension and Hospital Service System, registered Record subscribers are assured MEDICAL, SURGICAL and HOSPITAL CARE FOR ILLMENTS and ACCIDENTS without further charge.

This is the lowest-priced—and best—service of its kind offered by any hospital or medical service organization in California.

Each member who subscribes for this \$1.35 per month complete medical service is given a printed agreement setting forth the full benefits to be obtained and a list of physicians, surgeons, hospital and other treatment agencies designated and approved by the Pacific Life Extension and Hospital Service System and the Record Health Service League.

APPLICATION

L.A. RECORD HEALTH SERVICE LEAGUE
612 WALL ST., LOS ANGELES, CAL.

I hereby subscribe for The Los Angeles Record, for one year, to be delivered by carrier at my home, and agree to pay your carrier 45 cents at the end of each month.

For an additional payment of \$1 in advance, you agree to register me with the Pacific Life Extension and Hospital Service System, Inc., Ltd., entitling me to either one of the following services provided by that System:

SERVICE NO. 1
Medical, surgical and hospital services, for myself and all members of my family, at the reduced schedule of rates as provided by The Record Health Service League and the Pacific Life Extension and Hospital Service System; or

SERVICE NO. 2
Medical, surgical and hospital service provided by the agreement of the Pacific Life Extension and Hospital Service System, Inc., Ltd., for myself personally, without charge, as long as I pay to the System \$1.35 per month, the reduced rate arranged for me by The Los Angeles Record.

It is understood and agreed that my membership in The Record Health Service League, and eligibility for service at the rates quoted under either of the above plans, shall continue only as long as I am a subscriber to The Record.

I select Service No.
I enclose \$1 for registration.
(sm)
I (am not) a subscriber to The Los Angeles Record.

NAME

ADDRESS

CITY..... PHONE.....

To the Subscriber:
If you do not receive your membership card within five days of making application, please notify The Record Circulation Manager, 5600 1121, 515 West Street.

Reach for Your Scissors
Now and Cut the High Cost
of Illness by Clipping This
Application.

Display advertisement occupying three full columns of a western newspaper early in November, 1931.

It is appropriate here to quote the following statements taken from a report on contract practice prepared by a special committee of the ——— County Medical Society appointed to study the question of contracts operating under the state law and to define the position of the medical profession with respect to this subject:

Early in 1930 the ——— County Medical Society ordered a fact-finding investigation and the initiation of efforts to correct certain conditions which were known to have progressed to the point of having become public health problems.

Official action of the medical society limited the activities of the committee to three specific problems:

1. Certain contracts under the ——— law.
2. Certain so-called medical contracts executed by doctors contracting under the ——— law.
3. Commercial solicitation of professional business, particularly to secure the above contracts, either by physicians themselves or by lay agents hired direct or through corporate agencies.

The ——— law has been in operation thirteen years. Conceived in altruism toward the workmen to ease the financial burden incident to the surgical care of injuries, it has made possible the exploitation of the medical aid fund by contract doctors for profit to the possible tragic detriment of the injured, a condition contrary to good financial policy and good public health policy.

The law legalizes contracts and provides that the employer and employees in conference may choose the contract alternative. It does not provide nor does it specifically prohibit, nor was it the intent of the law that doctors should take the initiative, go themselves or send their hired lay representative to employers and groups of employees to solicit the contracts as they have done and are now doing.

Under the terms of the contracts as executed by contract doctors, ten cents on the dollar of the medical aid trust fund goes to the state for administrative expense; ninety cents on the dollar, at the time of collection from labor and industry, is turned over to the contract doctor. He is custodian of the fund; he administers it, determining what services shall be rendered, including his own professional services, hospital, nurses, drugs, appliances, and even professional consultants. He disburses for all services and keeps as his own the unexpended portion.

Therein lies the censurable financial policy, and therefrom arise the possibilities of detriment to public health.

In exploiting financial possibilities for personal gain under the law, contract doctors sometimes reduce services to injured workmen to the point of inadequacy and inefficiency. Under their administration of the fund a leg may be amputated to save the hospital expense incident to effort to save the leg, or workmen with fractures and serious internal injuries may be allowed to succumb without effort to determine and treat the internal injuries because of the hospital expense entailed during repair of the fractures in case life is saved. They hire laymen to solicit the contracts, thereby diverting a considerable portion of the fund to channels of commercialism, and as a corollary to the ——— law contracts, contract doctors are carrying on a wildcat health insurance business. They are known to have paid up to 20 per cent of the gross revenue derived from the contract and up to \$600 a month to lay agents through whom the contracts were secured. Through the use of hired lay agents they secure contracts remote from their home town, then sublet to local doctors for 25 per cent of the total revenue, their sole service being to secure and to sublet the contract, or they hire the cheapest available local doctor to render service under the remote contracts and often require him to pay them 50 per cent of the gross revenue derived from all private practice developed while in their employ.

In some instances a local physician has secured the necessary signature to the petition intending to take over the contract for the industry. Remote organizations hearing of the fact, through influence they could bring to bear, caused word to be sent to the mill that the employees should rescind their signatures immediately or if necessary every employee would be fired and an entire new crew hired. In these instances the workmen contributed 50 per cent of the revenue and under the law are supposed to have equal authority with the employer regarding who shall do their medical work under the law. A remote group of physicians is so entrenched that they are able to take the bread and butter from the mouths of laborers, their wives and children unless the medical aid contract is awarded to them. The workmen have grievances on this score and about the adequacy and efficiency of the services to the injured, but they dare not protest.

The groups of workmen included under the ——— law comprise convenient groups to bring into the wildcat health insurance activities. For from seventy-five cents to one dollar and fifty cents a month, contract doctors agree to render all professional services and pay all costs incident to the care of accidents not included under the ——— law and all sicknesses with specific limited exceptions. This contract is a limited health and accident insurance policy with all the evil possibilities of wildcat insurance, to wit:

1. The contract doctor is the insurer.
2. The insurer is unsupervised as to financial resources, and as to performance under his contract.

3. He determines the rates, administers the insurance fund, determines what services shall be rendered, renders that service personally or through agents in his hire, and retains the unexpended portion.

Any insurance actuary will testify to the fact that the rate is utterly inadequate; every man operating would go bankrupt in a short time if he fulfilled the terms of the contract. Any unprejudiced physician will testify to instances of failure of the insurer to fulfil his contract.

A man with a perforating ulcer of the duodenum went nine times to the contract doctor. The eighth and ninth times he was so ill his son had to take him after refusal of the contract doctor to call at the home. No adequate history was obtained, absolutely no examination was made. He was given a box of pills, some ten cents in value, which proved so laxative that their use had to be discontinued. He then consulted his family physician, who rendered proper service, including hospitalization and operation, incurring some \$400 expense. The contract doctor wilfully and negligently evaded financial obligation, the professional responsibility and effort to save for himself the cost of hospitalization and special nurses.

The ideals and ethics of the medical profession have through all time paralleled very closely the ideals and ethics of the legal profession. The ——— act of the state of ——— specifically prohibits the use of hired lay solicitors for securing professional work for lawyers. It is declared to be against public policy. The ——— act of the state of ——— does not contain any similar clause, although seventeen states and territories do have laws prohibiting the practice with revocation of license as the penalty.

CLOUDING OF CONTRACT CLAUSES

Not all patients having contract privileges understand the coverage or exemptions of the contract. Under the pressure of increasing competition the agent or solicitor may have misrepresented the coverage when making the sales. The patient suffers from these fraudulent methods when he finds that conditions for which he presents himself for treatment are not included in the contract and therefore he must pay for the treatment or seek a private physician. Almost all types of contracts, except those used by the coöperative groups and newspapers, cover the industrial workers only. It is claimed that there is too much bookkeeping to warrant taking contracts with individuals not on a pay roll or members of the employee's family. Whatever the advantages claimed for strictly industrial contract practice, these benefits cannot accrue to women, unless they are employees, and in no case to children.

PREVENTIVE MEDICINE DISREGARDED

In only one instance that has come to our notice is any attention ever given, under contract coverage, to preventive medicine. Generally speaking, contract practice is essentially curative medicine and the person who wishes to keep well by such means as the periodic health examination must still use his family physician or pay the contract group. Even though preventive medicine were to be practiced in contract medicine, two groups with which prevention is most important and effective, viz., women and children, would not be touched except for the few women who might be employed in the contract covered groups.

FREE CHOICE OF PHYSICIAN A MISREPRESENTATION

It is claimed that some contract plans offer the individual covered a free choice of physician. It is possible that there are such plans contemplated, but, as far as is known at present, there is no plan which includes all the physicians in a community. It is usually stipulated that such free choice of physician is limited to those physicians who are associates of or who are approved and designated by the contract holders. Use of the term "free choice of physician" is, under these conditions, definitely misleading if not fraudulent misrepresentation.

EFFECT OF CONTRACT PRACTICE ON THE PUBLIC

Contract practice has created in the minds of both the individual and the public a false impression of physicians and medical service. In contract practice not only the financial or business but also the intimate professional relationships between patient and physician are changed. These relations, which for centuries have been peculiarly close and personal, are now robbed of that intimacy and friendliness of

understanding which characterizes medical practice.

Now contract advocates come out with a new, high-powered model of medical service characterized by mass production methods, short cuts, and abbreviations in procedure which benefit the physician or group, not the patient; cold impersonality, long distance remote control and cash-in-advance payments.

There is little occasion for surprise that the layman who comes in contact with such a pseudoprofessional process and who analyzes it should consider the physician in the scheme a mere robot and his treatment procedures only stereotyped mechanical mimicry.

Most types of contract practice are devised for the promoters and not for the patients. It is because of this fundamental fallacy that confidence in the profession is disturbed. Nor is the quality of medical service the only element that influences profoundly the establishment and maintenance of confidence. The rates charged for contract work imply that all other medical fees are unreasonably high. When the truth is known, contract practice is not a complete coverage. Were it not for the exemptions, the dodging of responsibility, and the almost one hundred per cent collection guarantee, the holders of contracts would be forced to discontinue the practice because of its economic impracticability.

Contract rates also imply that physicians have a sliding range of fees. Medical and surgical treatment are indefinite scientific services measured in nature and amount according to the demands of the individual. Medical service, therefore, is not comparable to commodities sold by units of measure or weight, which are always constant. The bidding and underbidding and bargaining and adjusting practiced in securing contracts places medical services on a level with ordinary merchandise.

CONTRACT PRACTICE DEFINED

This brief discussion, with the few examples cited, is intended to stimulate an earnest, exhaustive examination of the methods of providing medical service rather than to describe completely the complex and disturbing system known as contract practice.

The Judicial Council has defined "contract practice" in the following words:

By the term "contract practice," as applied to medicine, is meant the carrying out of an agreement between a physician or group of physicians as principals or agents and a corporation, organization or individual, to furnish partial or full medical services to a group or class of individuals for a definite sum or for a fixed rate per capita.

This definition, I believe, will be found to cover every form of contract practice. It will be observed that in the definition no mention is made of the ethics of the practice for the reason that contract practice per se is not an ethical question, ethics being concerned with the form of the contract and the conditions under which it is made. That there are many conditions under which contract practice is not only legitimate and ethical, but in fact the only way in which competent medical service can be provided, becomes evident on analysis. For instance, when large numbers of workmen are employed, remote from urban centers, as in some mining or logging camps, efficient medical service can be secured only by contracting with some competent physician to do the work. Certain industrial situations arise wherein large employers of labor are compelled by law to provide medical services for their employees under certain conditions, and this at times can be secured only by some form of contract. A community too small to offer sufficient inducements to a competent physician to locate therein may secure one by some form of contract or agreement as to compensation. It is perfectly evident, therefore, if one is to judge whether a contract is ethical or not, that the form and terms of the contract must be known, as well as the particular circumstances under which it is made. As there is such a great variety of contracts, and as their form and the circumstances under which they are made differ so widely, it seems impossible, or at least inadvisable, to attempt to define what con-

stitutes an ethical contract. Each case must be judged on its own merits after all the facts pertaining thereto are known. There are certain points, however, that may be formulated which, when present, one or more of them, definitely determine a contract to be unfair or unethical. These may be stated as follows:

1. When the compensation received is inadequate, based on the usual fees paid for the same kind of service and class of people in the same community.
2. When the compensation is so low as to make it impossible for competent service to be rendered.
3. When there is underbidding by physicians in order to secure the contract.
4. When a reasonable degree of free choice of physicians is denied those cared for in a community in which other competent physicians are readily available.
5. When there is solicitation of patients directly or indirectly.

In the interpretation of the rules of ethics as applied to the practice of medicine: (1) By the word "practice" is meant the performance or application of medical knowledge; (2) by "solicitation" is meant to bespeak professional patronage by oral, written, or printed communications, either directly or by an agent; (3) by "patient" is meant any person, ill or otherwise.

SO-CALLED HOSPITAL AND HEALTH ASSOCIATIONS

In its report to the House of Delegates at Philadelphia, the Judicial Council gave consideration to the ethical and economic status of so-called hospital and health associations, controlled by groups of laymen, or by individuals, offering medical and hospital service to any who will buy "membership" and pay a nominal sum each month as "dues."

The Judicial Council's report states: "Such schemes have been put into operation in various places and have failed within a few weeks or months because of inadequate income or because of failure to render good service. The Judicial Council has regarded these schemes as being economically unsound, unethical, and inimical to the public interest.

"Within the last year (1930-31) some community hospitals have announced their intention to provide medical, surgical, and hospital service to families on a flat rate basis. In at least one instance such service has been offered to families for \$35 a year, irrespective of the number of members in such families. In most instances certain exceptions are made in that persons with chronic diseases are not entitled to receive the benefits of the plan and obstetrical service is not supplied without additional compensation. The members of the Judicial Council doubt that it is wise to lead the people in any community to believe that all necessary medical and hospital service, even though chronic diseases and obstetrical care be excepted, can be provided for the average family for \$35 a year. In the cases presented to it the Judicial Council has advised against adoption of such plans by community hospitals because it is believed that they are not economically sound in that they may be unfavorably affected by conditions entirely beyond control under which contracts cannot be fulfilled. There are other aspects of the matter that readily present themselves for consideration involving the interests of physicians in the community who cannot participate in such plans."

With these definitions and explanations it should not be difficult to determine the ethics of any type of contract practice. Personal interests and professional advantages must be eliminated when judging the merits of each plan; the welfare of patients, the integrity and competence of those operating the plan, and the method and adequacy of meeting the medical fee should receive first consideration.

TIME FOR THOROUGH INVESTIGATION AND MODIFICATION

The organized profession has no desire to obstruct reasonable and honest efforts to provide the best

medical care possible to persons receiving low incomes. In examining the methods now being promoted to accomplish this end it is essential that the welfare of the individual be kept always foremost.

It is believed that the success of any system must be predicated on the separation of the medical service rendered by the profession and the collection and administration of funds with which to pay for the service. Furthermore, it is believed that the practice of requiring physicians to certify to cash benefits must be modified or entirely eliminated. The physician's chief interest and duty should be in the care appropriate to returning his patient to normal health as soon as possible; his is a service benefit to the patient and he should not be made the "goat" in passing judgment by certificates or otherwise on cash benefits in which his patient may share.

Since contract practice is essentially a form of insurance benefit, it becomes necessary to consider well the method of certifying incapacity for work in any modification of the present system.

It is well, also, to consider whether we are undertaking, in the preparation of physicians, to produce a brand of professional attainment which we shall not be able to use because of the cost. Is the medical profession entering an era of transition, or must it develop a changed method of practice to meet changing social trends?

Is the culmination of centuries of development, research, and refinement in medicine to become a mere mechanical manipulation controlled by a few nonmedical managers, or shall the medical profession perfect its own methods of providing sound, scientific service at prices people can pay?

SUMMARY

Although there are many details of contract practice which deserve much more detailed description and comment than is possible in this report, it may be stated that contract practice

1. Took its origin largely from necessity;
2. Has been legalized, in certain places, by state statute;
3. Under certain conditions and in some forms is both ethical and legitimate;
4. In general, has become highly commercialized and competitive;
5. Is largely limited to the pay roll class;
6. Does not, in most cases, extend its provisions to women and children;
7. Concerns itself, almost without exception, to curative medicine and does not include preventive measures;
8. Shows no interest in public or individual welfare;
9. Furnishes medical care which is often inferior in character;
10. In many instances is characterized by underbidding, subletting, misrepresentation, and racketeering;
11. Is economically unsound in many of its present forms;
12. Is essentially sickness insurance usually not supervised or regulated;
13. Is often used by the operators thereof to influence legislation in favor of extension of the plan;
14. In many of its present forms lowers the confidences of both the individual and the public in the medical profession;
15. Has some features that deserve refinement and extension, and others that are unethical and dangerous and should be abolished.

535 North Dearborn Street.

APPENDIXES

The following appendixes are examples of some of the contracts to which reference has been made in the foregoing article. The form and wording of the contracts are based on information that has been received by the American Medical Association and documents on file in its headquarters.

APPENDIX T-1

THIS AGREEMENT, entered into between THE _____ CLINIC of _____, party of the first part, and _____, of _____, party of the second part;

WITNESSETH: The party of the first part in consideration of the payment by the party of the second part of the sum of money herein mentioned hereby agrees to furnish, perform, and render to the employees of the party of the second part the following medical service:

HOSPITAL SERVICES: Care in a ward bed of the _____ or _____ General or _____ Contagious Hospital as long as necessary, but not to exceed six months, for such conditions as are ordinarily accepted by the management of aforesaid hospital. Private room and private nurse in necessary cases will be furnished at the discretion of the party of the first part.

Operating room, laboratory work, plaster cast, x-rays and all drugs and medicines, will be furnished while at the hospital.

SURGICAL SERVICES: All surgical services for operations or injuries not provided for under the State Compensation Act will be furnished.

SICKNESS: All diseases, including contagious diseases, such as smallpox, diphtheria, scarlet fever, etc., will be taken care of at the above mentioned hospitals, or at home, or our office.

ADDITIONAL SERVICE: All medicines, drugs, prescriptions at authorized drug stores, crutches, braces, surgical belts, dressings, plaster casts, and splints will be furnished. All necessary laboratory work, x-rays, including dental x-ray, and all examinations for glasses (but not including glasses), will be furnished. Insulin will be furnished for a period of six months.

House calls when necessary will be made.

Ambulance service in necessary cases will be furnished.

A physical examination, including dental examination and x-ray of teeth when necessary, will be given free of charge to the employees and prospective employees when desired by the employer.

First aid training will be given to the safety men of the firm at stated intervals. Necessary first aid kits and supplies will be furnished.

EXCEPTIONS: Venereal diseases, conditions peculiar to sex, and conditions existing before commencing to pay medical fees under this contract.

GENERAL AGREEMENTS: Party of the first part agrees to at all times maintain a staff of at least a Major Surgeon, Physician, Eye, Ear Nose and Throat Specialist, and a Dentist.

Complete x-ray, physiotherapy, and laboratory departments and 24-hour telephone service will be maintained.

The party of the second part agrees to notify the party of the first part of any sickness or injury requiring medical or surgical services. In no event will the party of the first part pay for services of any physician or surgeon other than those designated by said party of the first part, nor be liable for or pay for any services, bills or expenses, unless authorized and approved by the party of the first part.

When deemed necessary by the party of the first part, services of a specialist to be designated by said first party will be furnished.

PAYMENTS: That the said party of the second part shall collect from each of its employees the sum of ten cents per day for the first _____ days of each month or any fraction thereof that each man in their employ works, and that the moneys so collected is a trust fund as provided by Chapter 136 of the Session Laws of 1929, and that the second party shall hold same in trust and pay same to the party of the first part on or before the 20th day of the month following collection.

This contract shall become effective _____ and continue for a period of _____ years.

THE _____ CLINIC,

Party of the First Part,

By _____,

_____, Party of the Second Part,

By _____.

~

APPENDIX T-2

THIS AGREEMENT, made this first day of _____, 193____, between the _____ COUNTY INDUSTRIAL MEDICAL AND SURGICAL SERVICE BUREAU, INC., of _____, party of the First Part, and _____, Party of the Second Part:

WITNESSETH:

HOSPITAL SERVICE:

That in consideration of the prompt payment by said Party of the Second Part of the amount hereinafter set forth, said Party of the First Part agrees to furnish medical and surgical treatment to those employees of said Party of the Second Part who may require same. Such services and care to be prompt and efficient, without discrimination or favoritism, and to cover injuries occurring at all times not covered by the First Aid Law, and illness, with exceptions as hereinafter noted.

Said treatment to consist of medical and surgical attendance, including operations, drugs, medicines, nursing, bed and board in a ward of the _____ General Hospital, or _____ Hospital (at the option of the patient), in the City of _____. The use of an ambulance will be allowed when necessary. Said service and treatment not to exceed ninety days (accidental injuries and surgical operations excepted).

NON-HOSPITAL SERVICE:

In the event of any employee or said Party of the Second Part needing the services of a physician, but not needing hospital care, said Party of the First Part agrees to furnish treatment at the office of the physician chosen or at the home of the employee if necessary. Said treatment to include all necessary drugs, medicines, dressings, etc. Prescriptions will be filled free of charge at drug stores designated. Said treatment and service not to exceed ninety days (accidental injuries and surgical operations excepted).

Eye injuries and diseases of the eye shall receive the immediate attention of an eye specialist.

PAYMENTS:

The employees of said Party of the Second Part shall be divided into two groups as regards payment.

The first group shall include all those employees who come under the State Medical Aid Law, and who are covered by the First Aid contract which is a joint contract herewith. The Party of the Second Part agrees to pay to the Party of the First Part for each employee of the group, the sum of _____ per month, which together with the amount provided in the First Aid Contract, shall constitute full payment.

The second group shall include all those employees who do not come under the provisions of the State Medical Aid Law. The Party of the Second Part agrees to pay the Party of the First Part for each employee of the second group, the sum of _____.

All payments to be made on or before the 15th of each month for the payroll of the previous month.

The Party of the First Part reserves the right to inspect the pay roll of said Party of the Second Part to ascertain the number and identity of employees. The said Party of the First Part shall not be held liable for treatment under this contract while said Party of the Second Part shall be in default of any monthly payment.

EXCEPTIONS:

Illness not common to both sexes; illness or disability caused by or received while insane; injuries incurred while fighting, rioting, or otherwise violating the law; caused by or resulting from the use of narcotics or intoxicants; venereal diseases and tuberculosis are not entitled to care or treatment under this contract.

GENERAL AGREEMENTS:

The employees of said Party of the Second Part shall be entitled to select any physician, surgeon or specialist, who is a member of the Bureau, a list showing said membership to be posted at the place of employment.

The party of the first part shall not be liable for the bill of any physician who is not a member of the Bureau.

Any employee entitled to medical attendance or hospital care, shall present to his physician an order for treatment properly filled out and signed by someone representing said Party of the Second Part with authority to issue same.

Employees entering the hospital must comply with the rules and regulations thereof and the orders of the physician in charge of the case and in case of their failure to do so, they may be excluded therefrom and shall not be entitled to further services hereunder.

Said Party of the First Part shall not be held liable for treatment of any injury or sickness existing prior to the employees entering the employment of said Party of the Second Part, or before commencing to pay medical dues. Said Party of the First Part shall not be held liable for treatment of sickness or injury after the termination of this contract, or after the patient has left the employ of said Party of the Second Part.

Said Party of the First Part shall pay for all x-ray pictures when authorized. Appliances such as glasses, atomizers, rubber stockings, and plates shall not be paid for by the Party of the First Part.

This contract is a joint contract with the State First Aid Contract of even date herewith between the parties hereto, and shall terminate jointly with said First Aid Contract in case of legislative change, or it may continue from year to year, and may be canceled by either party giving thirty days' written notice to the other party of its intentions so to do.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed in duplicate by their proper officers on the day and year first above written.

By _____, Party of the First Part.
By _____, Party of the Second Part.

✽

APPENDIX L R-1

Copy of Identification used in plan 1
Personal Identification Card
for members of

HEALTH SERVICE LEAGUE

This is to certify that the bearer, whose name is signed hereto, is a member of The _____ Health Service League, and as such is entitled to the benefits of the special rates for medical, surgical and hospital services by physicians and surgeons and other treatment agencies provided by The _____ System, for bearer and family.

It is understood that in consideration of the special arrangement, the bearer is to pay cash for services or comply with the credit requirements of the respective systems.

It is further understood that the bearer's membership in The _____ Health Service League, with accompanying benefits, is contingent upon his remaining a subscriber to The _____ for one year from this date.

Member's Signature _____ Date _____

APPENDIX L R-2

APPLICATION FOR "DESIGNATED AND APPROVED" PHYSICIAN AND SURGEON OF THE _____ SYSTEM, _____, _____.

Date _____, 193__.

TO _____
_____ System, Inc., _____.

I hereby make application for appointment as one of your "designated and approved" physicians and surgeons. I declare that I am a graduate, licensed, registered physician and surgeon in the State of _____.

I further declare that I am now or my qualifications are such that I am eligible to become a member of the medical society in the county in which I reside.

I agree to faithfully fulfil my professional obligations to my patients to the best of my ability and to cooperate with the instructions, rules and regulations of your "System."

I understand that I am to charge for my professional services in accordance with your approved fee schedule, which is based upon fees the same as or similar to those as set forth in that which is generally referred to as the _____ Compensation Fee Schedule.

I graduated from _____ Medical School in [year].

Signed _____, M. D.
Office Address _____.
Office Telephone Number _____.
Residence Address _____.
Residence Telephone Number _____.

City _____.

REFERENCES

1. Holmes, O. W.: Medical Essays.
2. Stewart, Ethelbert: Occupational Diseases and Workmen's Compensation, Monthly Labor Review, February, 1930, p. 93.
3. Bulletin Association of Casualty and Surety Executives, October, 1930, pp. 9-10.

THE LURE OF MEDICAL HISTORY

ESSAYS ON THE HISTORY OF EMBRYOLOGY*

By A. W. MEYER, M. D.
Stanford University

V

VIEWPOINTS OF HALLER AND BONNET

Many of the adherents of the preformation or old evolution theory, such as the great Swiss physiologist, Haller, did not accept it in its extreme form and application, but nevertheless supported it. He apparently found it incomprehensible that a force of nature should be able to build the organs out of unorganized material. Earlier, Haller was an epigenesist, but, strangely enough, was converted by his study of the development of the chick. Bonnet says that Haller wavered at one time in his adherence to preformation, but adds: "The chicken came to my assistance, and the great physiologist declared against epigenesis." Haller, as Malpighi, knew that the cicatrix is present by the time the egg is laid, and he established the fact that the intestine and yolk sac are continuous. This was hailed as a great discovery and a crucial fact in support of preformation even by Spallanzani. Haller also thought that motion was discernible in the egg before fertilization and that the embryo, hence, must have existed previously and Bonnet referred to the "Hallerian doctrine of embryos lodged in the ovarium which cannot be fecundated artificially," but Haller declared:

*This is the fifth paper of a series of essays on this subject. Previous papers were printed in this journal as follows: Part I, in December California and Western Medicine, page 447; Part II, in January number, page 40; Part III, in February number, page 105; Part IV, in March number, page 176.

"Again, other anatomists, not less celebrated or less worthy of credit, have taught that the foetus existed in the mother and maternal ovary; which the male semen excites into a more active life, and likewise forms it variously, so as to show it just brought into life, and make its presence manifest. That yolks are also manifestly found in the female ovaries, even although they have not been impregnated with any male semen. But a yolk is known to be an appendix to the intestine of fowls; and to have its arteries from the mesenteric artery, and the covering of the yolk to be continued with the nervous membrane of the intestine, which is continuous with the skin of the animal. That along with the yolk, therefore, the foetus seems to be present in the mother hen, of whom the yolk is a part, and which gives vessels to the yolk."

Since the last edition of Haller's physiology appeared four years before Wolff's work on the intestine it is of special interest to consider his ideas on generation. Haller stated that "The power of the male semen fecundates the ovum in the ovarian cells, as we see in the case of fetuses found in the ovaries in tubes; from the analogy of birds." He stated that "The male semen fills the tubes themselves at the first impregnation, both in women and brute animals," but he kept an open mind, as the following quotation shows:

"These changes, hitherto, which are proved at least by the testimony of our senses, may be either confirmed or corrected; those which follow are more conjectural; and the more difficult on account of experiments, and their difficulties and agreement with one another; and in the first place, it is a difficult question from whence proceed the first stamina of the new animal? Whether they are from both parents, and mixed into one animal by a conjunction of the seminal matter coming from the whole body, etc. . . . But no seed has ever certainly been observed in females; and innumerable examples show that the species of animals may be propagated without any mixture of seeds."

In this connection Haller spoke of "animalcules that are everywhere spontaneously produced in other juices," but he had formed a surprisingly good idea regarding the descent of the ovum, for he wrote:

"The extremity of the tube, therefore, surrounding and compressing the ovarium in a prolific congress, is thought to press out and swallow a mature ovum, from a fissure in the outer membrane, from whence it is continued down by the peristaltic motion of the tube, to the uterus itself; which peristaltic motion begins from the first point of contact with the ovum, and urges the ovum downward successively to the opening into the fundus uteri, which is very manifest in brute animals. The truth of this appears from the constant observation of a scar or fissure in the ovarium, which is produced there after conception; from a foetus being certainly found in quadrupeds, both in the ovarium of the female, and in the tube; from the analogy of birds, in which the descent of the ovum from the ovarium is very manifest. Yet we must acknowledge that a true ovum was never found in quadrupeds, unless after a long time. It is probable, that at the time of conception, the true ovum is almost fluid, very soft and pellucid, and cannot be distinguished from the mucus with which the tube is filled; likewise, that it is very small, on account of the narrowness of the tube."

Haller regarded the blood vessels as the oldest part of the body, the veins appearing first and forming the arteries. One could easily select sentences from his writings that would imply that he was an epigenesist although he was that at first only.



Fig. 6.—Frontispiece, Harvey's first edition (after Malloch).

"There are, therefore, in the primeval fetus, such as we first observe it, some things more perfect and conspicuous; others involved, and very small. The heart is the most perfect; it is the only movable and irritable part. . . . The embryo which we first observed in the uterus of the mother was a gelatinous matter, having scarce any proper shape, and of which one part could not be distinguished from another. . . . Again the more frequently, or the more minutely, we observe the long series of increase through which the shapeless embryo is brought to the perfection necessary for animal life, so much the more certainly does it appear that those things which are observed in the more perfect fetuses have been present in the tender embryo, although the situation, figure and composition seem at first to have been exceedingly different from what they show themselves to be at last; for an unwearied and laborious patience has discovered the intermediate degrees with which the situation, figure, and symmetry are insensibly reformed. Even the transparency of the primary fetus alone conceals many things which the color added a little after does not generate, but renders conspicuous to the eye. And it sufficiently appears that those parts which eminent anatomists have supposed in after times to be generated, and to be added to the primeval ones, have been all contemporary with the primeval parts, only small, some of it, and colorless."

Haller carefully considered the possibility of the fetus' swallowing amniotic fluid for purposes of nourishment and concluded that the evidences drawn, partly from birds and quadrupeds, favored the idea and that it did so. He believed that the maternal and placental circulations were continuous and gave as his reasons the suppression of menstruation during pregnancy, the loss of blood at birth, the exhaustion of fetal blood in case of hemorrhage on the part of the mother, the passage of water, mercury, tallow, and wax from the uterine arteries to the placenta, and because he thought that there is motion of blood in acardiac fetuses. It seems that Haller must have given

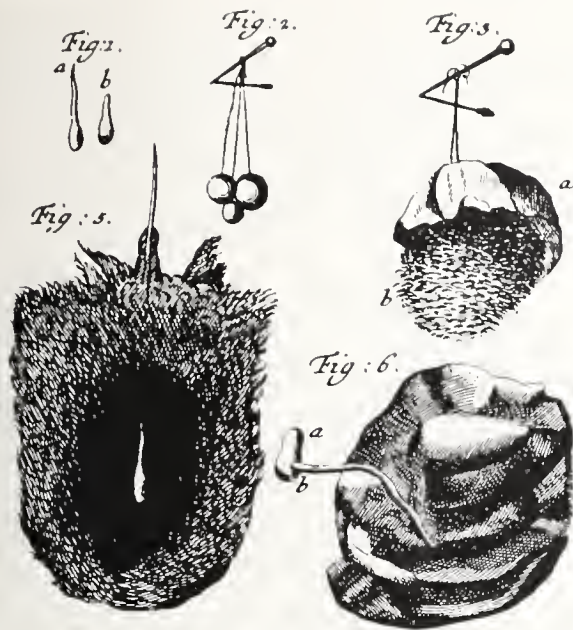


Fig. 7.—The above figures are from Leder-muller, after Ruysch. Fig. 1, a and b, are "rudimentary" human embryos. Fig. 2—The three spheres are said to be unfertilized human ova suspended by threads. They evidently must be immature Graafian follicles. Fig. 3—An abortus slightly enlarged. Fig. 4—An opened abortus said to still contain an embryo, the tail of which was attached and thought to be the rudiment of the umbilical cord. Fig. 5—A similar human embryo in which the head and abdomen are said to have differentiated and the umbilical cord shows further development. (This, to be sure, is a retained macerated, and probably abnormal, fetus.)

some of these reasons upon hearsay or that he was deceived by his own eyes. However, he adopted a very fine attitude regarding all these things, for he wrote:

"Although it is not easy to explain everything mechanically, yet we ought to remember, that if indeed the new animal is truly, and shown by experience to be, present in the egg, those difficulties which are moved cannot overturn such things as have been truly demonstrated, although perhaps some things may remain, to which, in so great an infancy of human knowledge, we cannot yet give a full answer."

It seems especially strange that Spallanzani, Malpighi and Reaumur and Leeuwenhoek as well, supported this false theory of preformation and that the last named should have done so after the discovery of the spermatozoön by Hamm and himself. Yet we must remember that it does not tax the imagination much more to picture an endless number of human beings telescoped one within the other in the spermatozoön than in the Graafian follicle of the ovary. Although the latter is very much larger than the spermatozoön, the matter of size is not a crucial thing when such multitudes are concerned. Certain philosophers are said to actually have estimated the number of miniature human beings that must have been in the ovary of Eve at the hour of creation, and further tried to calculate the time when an ovum or spermatozoön would be depleted and human beings would, hence, cease to exist on earth. Hartsoeker, a man of science, estimated that the size relationship of the first grain of wheat to one after six thousand years would be inversely as unity to unity followed by thirty thousand zeros. He similarly estimated that if all rabbits born since the beginning had been enclosed in a rabbit

living in his day the size relationship would be as one to this number followed by one hundred thousand zeroes, which must, of course, have seemed ridiculous. The philosopher Leibnitz gave the theory of preformation an entirely metaphysical interpretation, applying it to the soul and extending it to ridiculous lengths as Hartsoeker had done, and this helped to discredit it. But a greater difficulty confronting the preformationists lay in the fact that both ova and spermatozoa manifestly could not contain these minute forms of beings, for that would mean that every conception should result in a twin pregnancy. This dilemma resulted in the formation of two groups of preformationists, the ovists and the animalculists, accordingly as the ovum, or the spermatozoön was regarded as the germ of the future individual. Among the ovists were Cuvier, Harvey, Malpighi, Swammerdam, Spallanzani, and Littré; and among animalculists, Andry, Boerhaave, and Erasmus Darwin, Leeuwenhoek, Lieutaud, Lancisi, Leibnitz, and others:

The expulsion of the male sexual products was such an obvious and striking phenomenon and the idea of male seed such an old one that the presence of spermatie animalculae in them seemed to be *prima facie* proof of the spermatie origin of the new individual. The occurrence of ovarian pregnancy was not regarded as disproving such an assumption, for the animalcules manifestly might be able to develop just as well in the ovary as in the uterus. It is interesting that it had been suggested as early as 1701, by Andry, that spermatozoa might enter the ovary, but that fact was not established until 1853, and the union of sperm and ovum was not observed until 1875. Both the ovists and the animalculists found it impossible to satisfactorily explain the occurrence of regeneration, deformities, variations and inheritance, but that did not deter one group from confronting the other with these objections. One of the chief objections to animalculism was that it seemed to violate the religious concept of a benign creator. It was regarded impossible to believe that all except one out of such myriads of spermatozoa, each of which was supposed to contain a preformed individual, should be preordained to perish, and Leeuwenhoek's reference to the occurrence of similar things in plants and animals had little effect. The ovists, on the other hand, had to overcome the old belief that semen really represented the seed, and also the force of the old simile of the grain of wheat developing in the earth. Then, too, the very ancient observation that a woman might conceive while unconscious was taken to imply that she contributed nothing to procreation. It might seem that the discovery of the ovum by von Baer should have revived ovism, but von Baer himself decided against preformation and held that the embryo evolved slowly in the egg.

ERASMUS DARWIN AS AN ANIMALCULIST

Erasmus Darwin, whose *Zoönomia* was published in 1801, apparently was an animalculist in a modified sense, for he held that "At the earliest

period of existence the embryo, as secreted from the blood of the male, would seem to consist of a living filament . . ." such as a "muscular fiber." He stated that it was hard to conceive this, but repeatedly emphasized in the chapter on generation that the male plays a superior rôle and believed that the embryo is secreted by the glands of the male, for the cicatricula or germ disk was present only in hens that had been tread by the cock, writing:

"As the cicatricula of these eggs is given by the cock, and is evidently the rudiment of the new animal; we may conclude, that the embryo is produced by the male, and the proper food and nidus by the female."

Darwin considered the objection that if only one out of so vast a number of spermatogenic animalculi or hominuli, as he called them, survives in man that the wastage must be very great, but he concluded this was Nature's way, as exemplified by trees and fish. He emphasized that "The embryo is secreted or produced by the male, and not by the conjunction of fluids from both male and female, appears from the analogy of vegetable seeds." He referred to *volvox globator* in this connection, which

"is said by Linnaeus to bear within it sons and grandsons to the fifth generation. These are probably living fetuses, produced by the father, of different degrees of maturity, to be detruded at different periods of time, like the unimpregnated eggs of various sizes, which are found in poultry; and as they are produced without any known copulation, contribute to evince that the living embryo in other orders of animals is formed by the male parent, and not by the mother, as one parent has the power to produce it."

Darwin thought of the embryo as growing by "appositions of new parts and not by the distention of a primordial nest of germs, included one within another like the cups of a conjurer," thus pronouncing against emboitment. He attributed an excess of parts to an excess of nourishment and "mules" among plants and animals to the stimulus of a different environment. In the last recapitulation in his chapter on generation, he qualified his ideas somewhat and surmised that the animalcules found in semen of various animals are "produced by the stagnation of the semen in the vesiculæ seminales" and refers as evidence to "the spontaneous production of microscopic animals . . . in all solutions of decomposing vegetable and animal matter" within a few days even after boiling, as shown by the experiments of Reaumur and Baker.

In the chapter headed Reflections—on his experiments—Spallanzani says that, in his opinion, the immortal Haller alone has produced an insuperable objection against the spermatogenic worms being the authors of generation. Spallanzani apparently referred to the fact that Haller had shown that the yolk sac of the chick is continuous with the intestine. From this it was inferred that the chick must have existed in the hen before the latter had received the cock because the yolk existed in the egg. Although Bonnet realized the inadequacy of this observation, he wrote in a letter to Spallanzani:

"Haller was inclining to this hypothesis [epigenesis]. I had the courage to resist him, notwithstanding the impression his authority made on me. The chicken came to my assistance, and the great physiologist declared against epigenesis."

It is interesting that Spallanzani, himself, thought that no spermatogenic worms were present in his instances of artificial fertilization, and held that:

"This singular mode of impregnation equally demonstrates the falsehood of Epigenesis, or of that system, which has been raised from the dead, protected and caressed by Buffon; who, by means of his organic molecules, has created an imaginary organic world, as his countryman Descartes had before constructed the whole mass of existences, both organic and inorganic, with his subtle matter. The spermatogenic worms having first struck his senses, and being thence transferred to his fervid and creative fancy, lost their former name of animals, and acquired the new title of organic molecules."

It is easy to realize the consternation created among the animalculists by the rediscovery of hermaphroditism in aphides by Bonnet about a century after the discovery of spermatozoa by Leeuwenhoek. If plant lice had an asexual as well as a sexual cycle; if ova could develop without the instrumentality of spermatozoa and perfect individuals nevertheless result, then the spermatozoon seemed to be eliminated. Although these observations of Bonnet's were at first doubted, they were confirmed and seemed to show clearly that the animalculists were in the wrong. They brought joy to the ovists, but their rejoicing was brief, for they too were soon to find that they also were in the wrong, although Gilis says the great Cuvier supported the preformation theory as late as 1830.

(To Be Continued)

Health Problems of Old Age.—The question seems pertinent as to whether the declining years of life may reasonably demand the development of specialists in order that old age may be postponed and usefulness of maturity increased. Although the process of decay is one of the natural changes to be expected, many people retain the elements of youth even beyond the recognized period of average longevity and it is most natural that there should be developed a better understanding of the degeneration which takes place with increasing years.

It is recognized that we inherit from our parents a certain structural pattern and functional tendencies, especially those of the nervous system and certain evidences of deficient oxidation. Such tendencies are passed on from one generation to another, but by the control of environment, diet, recreation, and leisure very much may be done to increase the enjoyment and usefulness of later life. An especially well-recognized function of maturity is the example which one may give to those of younger years. We may find that health in old age is a comforting, gratifying and harmonious experience although entirely different from the refreshing and delightful activities of youth.

The increase in longevity gives every promise of an addition to this period which will be pleasing with added comfort to the individual and all who are interested in him.

Rejuvenescence is a myth, but the pathology of age may be very materially modified by intelligent control. It seems reasonable to suppose that there is a useful and remunerative field in medicine for the specialist who may devote himself to problems of declining years.—*New England Journal of Medicine*, March 10, 1932.

BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussion invited.

INTRACTABLE DIARRHEA

ALFRED C. REED, M.D. (Pacific Institute of Tropical Medicine, Hooper Foundation, University of California).—By intractable diarrhea we mean chronic or recurring diarrhea not obviously or easily diagnosed as to etiology. We distinguish diarrhea from dysentery clinically by the association in dysentery of blood and mucus in the stools, with colicky pain and increased frequency of bowel movements. The patient with intractable diarrhea should have a diagnostic program which includes the following points. The cause of the diarrhea may be missed if these procedures are not carried through.

DIAGNOSTIC METHODS

1. *The history* is of primary importance, often giving excellent clues as to etiology. Age, sex, previous residence and associated symptoms throw light on the nature of the process. History of previous diseases and operations must include details of previous medical diagnoses and treatment.

2. *Physical examination* must be complete and thorough. It is easy to overlook tuberculous lung disease, malignant foci in the urogenital tract and, in fact, all general diseases, such as pellagra, typhoid, tuberculosis, etc. These may be excluded on careful complete examination. Sigmoidoscopic examination should be invariably done.

3. *Laboratory procedures*, in every case of intractable diarrhea, must begin with routine examination of urine, blood count, blood Wassermann, and stools. Stool examination must be made by a technician thoroughly competent in protozoology and bacteriology. Failing such expert examination, the report is valueless and may be misleading or even dangerous. Direct microscopy should note the character of digestion, nature and quantity of fat, presence of tissue elements, crystals, macrophage cells, cysts, active protozoa, ova, and foreign bodies of any sort. Direct fresh culture should be made, preferably by aid of the sigmoidoscope, for the typhoid-paratyphoid and dysentery bacillus groups. This culture will also identify the character of the intestinal flora. The culture should be kept until it is decided if a vaccine is to be made.

Iron hematoxylin stained smears should be examined for protozoa. Stool culture for protozoa is unnecessary and adds little to the diagnosis. The presence of spore-bearing bacteria should be noted, but anaerobic cultures for vaccine are unwarranted.

4. X-rays of the gastro-intestinal tract should be supplemented by barium enema.

ETIOLOGY

The cause of intractable diarrhea should be sought according to the following outline:

1. *Entameba histolytica*. In chronic stages diarrhea and constipation may alternate. There may be little or no mucus, or blood. Only careful examination of a series of six or more stool specimens by a competent technician can safely exclude amebiasis. Often it is well to give a sharp saline purge, examining both the liquid stool and the later formed stools at once for active amebas as well as for cysts, as described above.

2. *Bacillary dysentery* of the Flexner type is seen not rarely, perhaps more often in children. When chronic and not very severe, the cause is easily missed. Stool culture on appropriate media should be made directly from the patient with the sigmoidoscope, or at the latest, from the freshly passed stool.

3. *Hyperthyroidism*. Occasionally, when specific diagnosis fails and treatment is ineffective, a basal metabolism test will show hyperthyroidism. Such cases may be simply undiagnosed or may be confused with sprue.

4. *Streptococcus infection* is demonstrable by Gram smear and culture and, if abundant, yields best to colonic irrigations and autogenous vaccine.

5. *Sprue and hill diarrhea* must be considered in patients coming recently from endemic districts, especially China, Malaya and the East Indies, the Philippines, and India. There is apt to be a history of recent dysentery. Early morning diarrhea with whitish, gaseous stools containing excess fat, should always excite suspicion in such a patient.

6. *New growth* should be suspected in continued diarrhea of slow onset in a middle-aged or elderly patient.

7. *Achylia*, especially with anemia, should lead to special study with reference to a primary anemia. It is well to remember that achylia may be associated with severe constipation.

8. *Purely nervous* diarrheas are seen, often associated with increased metabolic rate, and often with vasomotor imbalance, neurasthenia, and neurones. Diagnosis of this group must only be made after rigorous exclusion of every other group.

9. *Mechanical conditions* in the bowel, due to adhesions, internal hernia, chronic local or adjacent infection, and adjacent inflammation or tumor, are usually recognizable by skillful x-ray technique. It must be emphasized that only the most expert type of roentgen specialist should be trusted. Routine x-ray examination by poorly qualified physicians is all too apt to miss pa-

thology and misinterpret positive findings. The x-ray examination should be in the nature of a consultation. Routine procedure is entirely unsatisfactory. The roentgenologist should be considered a consultant. The clinical problems involved should be laid before him and his effort should be to obtain and interpret all x-ray evidence possible to be obtained.

10. Certain general conditions must be considered and the diarrhea estimated as part of the entire clinical picture. Here are considered pellagra, syphilis, tuberculosis, the typhoid group, and diarrheas of various subacute and chronic infections.

11. *Intestinal parasites*, other than *Entameba histolytica*, may cause intractable diarrhea, but are recognizable by careful stool examination. Among these especially to be noted are giardia, schistosomes and other flukes, strongyloides, ascaris, and balantidium.

12. *Chronic ulcerative colitis* and mucous colitis are diagnosed by exclusion of the groups already mentioned, by the history and by associated conditions. When the history and x-ray indicate chronic ulcerative colitis, stool culture should be made for Barger's bacillus with special media and a vaccine prepared. Mucous colitis should be treated as a part of a general allergic condition. Bland diet, belladonna, ephedrin, bismuth, kaolin, and careful attention to general health are useful. Detailed search for specific antigens, with exhaustive skin tests, are necessary.

13. Finally, various combinations of *diet and of nervous state* may cause diarrhea and be most difficult to control. Pediatricians have pointed the way toward control of diarrhea by attention to the proportion of fats, proteins, and carbohydrates in the diet. Mineral intake, especially of calcium, must be sufficient. If this is possible in infants and small children, it is possible in adults. The nervous mechanism of the intestines in many patients is unduly sensitive and overresponsive to mental, nervous and physical states. Fatigue, chilling, nervous strain, and emotion may cause diarrhea in such persons. This group merges into the group of more strictly nervous diarrhea already mentioned.

TREATMENT

Two therapeutic principles must be employed. The first is to seek and attempt to cure specific causes. The second is the general treatment of intractable diarrhea as a symptom in itself. Under this second heading, the following methods are necessary, each being adapted to the individual patient:

1. Physical, mental and nervous rest.
2. Bland diet without irritating properties, insuring caloric value and satisfactory elimination (see Barger and Victor, *Journal of the American Medical Association*, p. 151, July 18, 1931).
3. Removal of irritating material in the digestive tract, usually best done with castor oil.
4. Astringent and protective drugs such as bismuth, kaolin, and lead.

5. Antispasmodic and carminative drugs such as camphor, belladonna, etc.

6. Sedative drugs, such as amytal and codein.

7. External warmth and counterirritants.

* * *

R. A. KOCHER, M.D. (Carmel).—The term "intractable diarrhea" is applied to cases which do not respond to simple or obvious measures of treatment. For the most part the diagnosis of the underlying cause of these conditions is extremely difficult. An accurate knowledge of the nature of the underlying cause is of primary importance, as the treatment may follow divergent lines. These cases may be classified to include those without any discernible organic lesion and those associated with various intestinal diseases. Whatever the underlying cause, in all protracted cases, there is almost sure to develop an inflammation of the mucous membrane, so that in all long-standing cases we may expect an enteritis or colitis. Common to all patients is a loss of water from the body which may be the result of decreased absorption, an oversupply of water to the body, or an increased excretion of water from the mucous membrane of the bowel.

A careful, detailed history, together with an x-ray, physical and stool examination, should enable one to determine whether the primary trouble is in the small intestine or in the colon. Diarrheas initiated in the ileum or jejunum are apt to produce intermittent partially formed stools containing quantities of undigested food residue, mixed with water and due to inadequate action of the digestive juices. Upper alimentary tract diarrheas are more likely to produce nausea and colicky pain. Colon diarrheas usually exhibit tenderness on external pressure over the descending colon. In chronic colon cases there is more apt to be an abnormal amount of mucus.

Upper tract diarrhea is frequently of gastric origin, associated with achylia or very low gastric acidity. Achylia probably causes diarrhea through the lack of stimulus to pancreatic secretion and consequent failure of digestion. This is fundamental, that in all cases of diarrhea there is a disturbance in the normal gradient of motility. There may be a depression of the gradient at the lower end of the bowel, due to ulcer or other irritating lesion of the rectum; on the other hand, the gradient may be raised in the upper alimentary tract, and if this happens in the small intestine, there is a resulting rush of fecal material from the ileum into the cecum. If the normal antiperistaltic movements in the first part of the colon are absent or feeble, then this steepened gradient brings about too rapid transmission of material through the colon where the proper excretion of water cannot take place.

In the space allotted for this discussion it will be impossible to take up in adequate detail the many underlying conditions which may be the cause of intractable diarrhea. In most cases, such as rectal ulcer, achylia, chronic heart disease with passive congestion of the bowel, severe nephritis,

bacillary infection, that is, with organisms of the enteritidis group, the diagnosis of the underlying cause points the way to proper treatment. I should like to confine myself chiefly to a discussion of two contrasting types of intractable diarrhea:

1. Those cases arising from nervous influences, including hyperthyroidism.
2. Those cases caused by intestinal protozoa.

In the first group there is no demonstrable organic lesion in the bowel; in the second group, if due to *Entameba histolytica*, the diarrhea is accompanied by ulceration. I have called attention to this contrast purposely, because the underlying cause is frequently misdiagnosed. The first group is relatively common, if we include those colitis cases having a spastic colon with constipation alternating with periods of diarrhea. The second group, due to intestinal protozoa, is relatively uncommon, at least in the United States, and this statement is made in spite of the frequent findings (?) of ameba.

DIARRHEAS OF NERVOUS ORIGIN

Various nervous influences may be at the root of certain cases of protracted diarrhea, and such cases will tax the utmost skill of the most alert physician. The history will usually reveal a neurotic type of individual, of unstable emotional make-up in whom the slightest external stimulus results in excessive peristalsis. Many of these patients are suffering from chronic fear due to maladjustment, and it is necessary to direct our efforts toward bringing about a more normal mental balance. Change of environment, a regular regimen on a smooth diet, reassurance, simple sedatives such as phenobarbital, etc., are sufficient in many cases to effect improvement. These cases are prone to relapse and require patience and constant reassurance, aided by suggestion. The patient is reluctant to admit the purely nervous origin of his difficulty and is prone to try one doctor after another in hope of finding some organic condition as the basis of his trouble. Minus appendix and gall-bladder, he often arrives at a doctor's office with an array of previous diagnoses, ranging from amebic dysentery and colitis to that nonexistent refuge of the nonplussed, ptomaine poisoning. Included in this type are certain hyperthyroid cases in which there is no demonstrable organic lesion of the bowel and in which the exciting cause is exerted through the nervous system. There are probably more cases of intractable diarrhea on a thyroid basis than is generally supposed. M. B. Tinker, in a recent report of 1415 thyroid cases presenting digestive symptoms, found over 10 per cent complaining of persistent severe diarrhea. We have had a number of such patients presenting very few of the classical signs of hyperthyroidism. However, the basal metabolism was invariably high, and made the diagnosis certain.

The basal metabolic rate should be taken in all cases of the nervous type of diarrhea in which other organic disease has been ruled out. These hyperthyroid diarrheas respond well to the ac-

cepted treatment for hyperthyroidism (where adenoma is excluded), namely, compound solution of iodine, rest, high caloric diet, high in protein; severe cases may require x-ray treatment or operation on the thyroid.

All chronic diarrhea cases require absolute bed rest as the first requisite for successful treatment. Next in importance is a smooth diet free from irritating, indigestible cellulose residue, the so-called low residue diet. Such a diet should avoid particularly salads, cucumbers, cabbage, cauliflower, onions, celery, tomatoes, pineapple, raisins, berries, nuts, raw fruits, beans, green peppers, melons, peanuts, and coffee.

Suggested foods which may be allowed: boiled milk, chocolate or cocoa, tea, Kaffee Hag or Sanka, eggs, bacon, toast, farina, cream of wheat, broths, cream soups, chowder, meat, fish, chicken or squab, bread and butter, rice, potatoes (baked and mashed). Likewise, well-cooked macaroni and spaghetti. Later, pureed peas, asparagus tips, artichoke, squash, lima beans, lentils (all skins to be removed by putting through a strainer). Desserts: custard, jello and ice cream. Absolutely forbidden are bran, whole wheat bread, coarse breakfast foods, sausage, shellfish, all smoked fish and pork.

In addition to bed rest and appropriate diet, psychotherapy (sometimes with the assistance of a neuropsychiatrist), mild sedatives of the barbituric series, or bromids, may be helpful. At times tincture of opium or paregoric is required in addition to the other measures for relief or as initiative treatment. In order to soothe an inflamed mucous membrane, bismuth, alone or in combination with paregoric for a day or two, may be tried.

DIARRHEAS DUE TO PROTOZOAL INFECTIONS

A steadily increasing number of intestinal complaints, including diarrhea, colitis, and constipation, have been attributed to intestinal protozoa, chiefly to *Entameba histolytica*. Here the aid of a first-class laboratory and a technician specially trained in the morphology of protozoa is essential to an accurate diagnosis. There are many cases of colon disturbance blamed on the ameba in which subsequent repeated examination by competent workers has shown none to be present and in which it is certain that the treatment instituted could not have effected a cure. A proctoscopic examination should be made in all patients, as the presence of ulcers in the lower bowel are almost invariably present. While the English authorities, Wenyon¹ and Dobell,² believe that *Entameba histolytica* may be present in the intestinal tract without causing lesions in all cases, Alfred Reed³ is positive in his statement that their presence means ulceration. In any event, the importance of a diagnosis by trained workers in this field cannot be too strongly emphasized, as the effective drugs used in treatment, with the exception of the recently introduced carbarsone, may be highly toxic and should be used with extreme care and only in the hands of those cognizant of the possible dangers. Emetin is without doubt specific for the ameba and has cured many cases, but on account

of its toxic action on heart muscle a search has been made for some equally specific substitute, lacking its somatic toxicity. The most promising drug so far developed is carbarsone, introduced by C. D. Leake and first applied clinically by Alfred Reed. We have had but limited experience with this drug, but with very favorable results. In view of the successful experiences reported by Reed and its freedom from any toxic action on the system, carbarsone should be the choice for specific treatment in these cases. Along with the specific treatment the same general measures which apply in other cases of intractable diarrhea hold in protozoal cases, namely, bed rest, smooth, nonresidue diet, general constitutional measures.

Numerous other protozoa have been blamed for cases of chronic diarrhea, among them giardia, chilomastix, trichomonas. While generally held nonpathogenic, there is still some difference of opinion as to the harmfulness of these organisms. Any of them may at times be found in large numbers in the alimentary tract of subjects presenting no symptoms whatever. It follows that until we have more certain knowledge, any attempted specific treatment should be conservative and the toxic drugs of the emetin and arsenic groups avoided.

J. A. Barga⁴ in 1925 first reported the finding of a diplococcus in the colon of certain cases suffering from chronic diarrhea. These patients, in his hands, have responded to vaccine made from this organism. Marian B. Pierce, in our laboratory, has found evidence that Barga's organism, although commonly found in normal stools, may become pathogenic and invade the gall-bladder. A detailed report of this work will be published later.

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RAWSON J. PICKARD, M.D. (520 E Street, San Diego).—Diarrhea is the too rapid evacuation of too liquid stools. It is the most frequent sign of intestinal affections. In chronic diarrheas the evacuations may not be numerous and may alternate with periods of constipation. The water in the stools is almost always of intestinal origin. The etiologic diagnosis must be made from the history, general examination, coprologic, radiologic, and often duodenal examinations.

History.—A careful history is essential in learning the origin of the troublesome diarrheas due to a chronic infection with the dysentery bacillus, and the diarrheas of nervous and emotional causation described by Schmidt which may become chronic and most intractable. Rosell says they are common. They must be distinguished from the diarrhea of hyperthyroidism. The history and general examination will indicate the special work necessary for the differentiation of the diarrheas due to tuberculosis (intestinal or pulmonary), to cardiac or renal disease, hepatic cirrhosis, adrenal insufficiency, pernicious anemia, and cachexias.

X-Ray.—The x-ray will usually show the anatomy of the intestinal tract (tumors, ulcers, adhesions) and its motility, but dependence on any one factor will lead to the gravest errors.

Coprologic Examination.—The coprologic examination can show the physical, chemical or inflammatory origin of alvine disturbances as well as the motility, and often the localization and nature of the trouble. Few of us in this country are sufficiently familiar with the feces after test diets to judge the claims for fecal study made by Schmidt, Goiffon, Gaultier, Rosell, and others. Schmidt's three-day test diet has been modified to suit the taste of various nationalities; Gaultier uses a single test-meal. Carmin or charcoal mark the diet stools and show the time of passage. The essentials of the diet are raw muscle and connective tissue (underdone Hamburger steak), potato, and fats in quantities that should be completely digested. Lynch makes repeated microscopic examinations with the ordinary diet.

The stool is examined for appearance, color, odor, blood, pus, gas, the presence of mucus throughout (enteritis) or in masses (colitis), reaction, the sublimate test for stercobilin (normal) or bilirubin. The proportion of fatty acids and soaps to neutral fats and their amount may be sufficiently estimated (after diet) in microscopic preparations with Nile blue or Sudan III. Starch and the iodophilic bacteria (pancreatic insufficiency or premature evacuation of the ileocecum) stain with Lugol's solution. Muscle, connective tissue, blood, pus, ova, the triple phosphate crystals of putrefaction (stasis in colon) are seen in the ordinary slide. Mucus stains with thionin. The amebas and their cysts cannot be diagnosed without wet, fixed preparations stained with iron hematoxylin.

The chronic diarrheas of gastric origin are usually due to hypoacidity or anacidity. The presence of connective tissue is diagnostic of low acidity. The intestine reacts to the undigested food, secretion is not stimulated, hypermotility ensues, later inflammation and putrefaction. The stools are then alkaline and fetid, while starch and muscle are digested by the pancreas.

The presence of large amounts of muscle fibers showing striations and perhaps nuclei indicate pancreatic insufficiency. Large amounts of digested muscle and of starch show lack of intestinal absorption or hypermotility. Fats are usually 95 per cent absorbed. Large amounts of neutral fats characterize pancreatic deficiency; if the fats are in quantity but converted to fatty acids and soaps bile is lacking. The copious fatty stools of sprue are normal as to bile.

Watery alkaline putrid feces containing mucus but in which the muscle is digested and where starch and cellulose are absent show that the diarrhea conceals a retention. In a patient who is over 40 and is neither uremic nor diabetic, diarrhea should cause a search for cancer; it is as common a symptom as constipation. Excess sugars and starches in the diet may provoke a diarrhea due to fermentation—the acid fermentative diarrhea

¹ Protozoölogy, 1:203, 1926.

² Personal communication of T. Wight, pupil of Dobell.

³ Reed, Alfred: Tropical Medicine in the United States, p. 6, 1930. Lippincott & Co.

⁴ Barga, J. A.: Chronic Ulcerative Colitis, with Bibliography, Arch. Int. Med., 45:4, 1930.

of Schmidt. The stools are expelled with considerable gas and colic, they are large, yellow, of butyric odors, spongy with gas, and contain starch and iodophilic bacteria. Muscle is digested.

A short passage time with assimilable residue shows lack of absorption, with nonassimilable residue, lack of ferments. The higher up the alteration the more numerous are the undigested particles. Persistent fermentation in the cecum and colon lead to an exudative inflammation with consequent putrefaction, which then co-exists with fermentation. The stools then are neutral, the acids of fermentation neutralizing the ammonia of protein decomposition.

In hypochlorhydria the time of evacuation is often postprandial, and without pain. A postprandial diarrhea with colic may result from the secretion of excess bile due to the stimulation of coffee, the hyperstalsis of colitis, or from sensitivity to certain foods. The diarrhea of azotemia is accompanied by colic and colitis which may be ulcerative.

The diarrheas that alternate with constipation are often due to amebic infection. It is often difficult to define the rôle of the protozoan parasites. The flagellates are often present in intractable diarrhea; usually when they are present there is also a hypoacidity, a condition which is by no means always accompanied by flagellates, but which favors their enormous multiplication. *Giardia* is often definitely pathogenic, the others perhaps at times aggravate an existing inflammatory condition, Craig thinks this may occur in children. There is no proof for or against their producing allergy. A few enthusiasts ascribe to protozoa, usually *E. histolytica*, a variety of disorders that is incredible unless based on protein reactions. Faddists' methods of diagnosis are often hasty, and the clinical use of amebiasis sometimes reminds one of the chapter on "colitis" in the "Story of San Michele." All extremists are amusing, but one may also learn from the extremist who has a few facts with his theory. The student of medicine, and in this interesting field the oldest graduate can again become a happy student, should first eliminate known possibilities. With no other foci of infection one may then rightly prescribe the not-innocuous treatment against the protozoan, *E. histolytica*, with which as pathogen of the chronic amebic syndrome is that ameba with the 8-nucleate cyst and multiple karyosome which all acknowledge being able to recognize ("no one complains of his judgment"), but usually class as a variety of *E. coli*.

The chronic diarrheas of enteritis and colitis of infectious origin follow an acute attack. The diarrheas due to functional disorders, the dyspepsias, are insidious in onset. The x-ray shows only the hypermotility. From the duodenal contents, or the stools after test meals the absence of ferments is revealed. "The practice of these three means of exploration gave the present concept of intestinal dyspepsias which we substitute for the

concept of diarrhea or constipation at which medicine so long tarried. We undoubtedly know but little yet and because of the solidarity of the digestive function we would be embarrassed in establishing definite physio-pathologic classifications among the innumerable facts. We can but try." (Trémolières and Caussade.)

Let the Doctor Decide.—This is the year set for that imposing and expensive body, the Committee on the Cost of Medical Care, to write its prescriptions for the cure of medico-economic ills.

If certain recent publicity issued by Secretary of the Interior Ray Lyman Wilbur, chairman of the committee, may be taken as a sign, the prescription will be for a system of civilian health insurance with the government, possibly, writing the policies.

At any rate, a significant front-page story appeared in February in the *United States Daily*, that unique publication under the management of the newspaper correspondent, David Lawrence, devoted wholly to government news, and it came direct from Secretary Wilbur's office with his official approval.

"To relieve patients of the heavy costs of medical care in the United States," says the story, "it has been suggested that a system be worked out for the regular and orderly payments like life insurance payments, the Committee on the Costs of Medical Care announced in a statement received today from the Department of the Interior. The statement of the committee, of which Ray Lyman Wilbur is chairman, follows:

"The costs of medical care might be modeled on a system of regular and orderly payments like life insurance in order to remove some of the difficulties attendant upon the present system of medical care and costs, it was suggested by Miss Mary Dublin in a paper just submitted to the Committee on the Cost of Medical Care.

"This important suggestion *may be of epochal significance to the health of the entire nation* (the italics are ours) was made as a result of a study of the comparative expenditures for insurance and the expenditures for medical care.

"Miss Dublin's survey is being published, the committee points out, as one of its miscellaneous contributions and a possible help in answering the question. How may the ordinary family provide against an uncertain financial burden which may be very large in proportion to the family budget and which is likely to be uneven month by month and year by year?"

There is more in the statement to the same general effect.

Is organized medicine ready to take a stand for or against such a proposition if it is, indeed, incorporated in the final recommendations of the committee? Ready, that is, with figures and facts to match the glittering array that will be cited by committee protagonists of health insurance?

Will organized medicine be ready to show by an equally exhaustive and complete study of results of national health insurance in France and Germany and England, for example, that its position on the question is founded upon equally sound and disinterested observation? The report of the Committee on the Cost of Medical Care will be a challenge to the statesmanship and stability and alertness of the medical profession. A recommendation on the part of the committee for general health insurance will automatically create a serious problem which cannot be met by a scowling resistance on the part of the profession. If it is possible for one people to learn from the mistakes of another, then America will not fall into the error that is reducing medical practice to the football of depleted budgets, or government rules and regulations in other nations.—*Minnesota Med.*, March, 1932.

California and Western Medicine

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Contributions—Exclusive Publication.—Articles are accepted for publication on condition that they are contributed solely to this journal.

Leaflet Regarding Rules of Publication.—California and Western Medicine has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this journal write to its office requesting a copy of this leaflet.

EDITORIALS*

ANNUAL SESSION, CALIFORNIA MEDICAL ASSOCIATION, PASADENA, MAY 2-5, 1932

Last Call for the Sixty-first Annual Session.—This issue of CALIFORNIA AND WESTERN MEDICINE presents the complete program of business, scientific and social meetings which will be held at this year's annual session of the California Medical Association. The sixty-first will be the first annual session which the California Medical Association will have held at Pasadena. The physicians of Pasadena, in coöperation with the Los Angeles County Medical Association, are exerting much effort to make this year's reunion a great success. The official headquarters will be the Hotel Huntington, one of the largest tourist hotels of California, beautifully located in the San Gabriel Valley. If it is your intention to be a guest at the Hotel Huntington during the session it will be wise to make reservations at once.

* * *

Transportation Facilities to Pasadena from Los Angeles.—It is important for visiting members to remember that Pasadena is some distance from Los Angeles proper. Elsewhere in this issue will be given complete information concerning transportation facilities by railroads, street cars and

* Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Medicine Today column, which follows.

buses. The "Pasadena-Oak Knoll" Pacific Electric car line (which has a 20-minute schedule), leaves the Pacific Electric (P. E.) station at Sixth and Main streets in Los Angeles, and stops in front of the Hotel Huntington grounds. For additional information concerning transportation facilities see the program announcements. (Page 266.)

* * *

The Complete Program Is Printed in This Issue.—The complete program of business, scientific and social events is printed elsewhere in this issue of CALIFORNIA AND WESTERN MEDICINE. (See pages 256-281.)

The guest speakers from the East who, upon recommendation of the Section Officers and of the Committee on Scientific Program, have been invited by the Council of the California Medical Association to be present at the 1932 meeting are: Doctors S. A. Levine, Fred H. Albee, R. B. Greenough, and Karl Menninger, colleagues well known throughout the country for work in their respective fields. These guest speakers will not only make addresses at the general meetings on Monday and Wednesday, but are also on programs of certain of the scientific sections.

* * *

Scientific and Commercial Exhibits.—The scientific exhibits and the commercial exhibits will be located in rooms immediately adjacent to the main corridor. Indications are that both will be of great interest and be worthy of a visit by all who attend the convention. The commercial exhibitors through their advertisements in the official journal add to the income of the Association. They will be appreciative of the courtesy of your attention to their exhibits.

The programs of the scientific sections of the Association show the wide range of topics which will come up for discussion. A preliminary perusal of the digests of the papers which will be presented is recommended to all, because previous thought on subjects which will come up for consideration will make for much better discussion.

* * *

Entertainment Program Also Promises Much.—The entertainment program which has been outlined by the local committee is likewise most inviting. The nearness of the Huntington Library should lead out-of-town members to avail themselves of the opportunity to visit that world-famed institution in which are housed the greatest collection of incunabula or cradle books (all printed before the year 1500) which is existent on the American continent.

If you will glance at the program and outline of activities of the Woman's Auxiliary of the California Medical Association you will note how splendidly this organization has developed since its founding several years ago. Its existence is an additional reason why members of the California Medical Association should bring their wives to the meetings. (See page 279.)

All Indications Point to a Large Registration.—It is believed that the registration cards will show a large attendance of California Medical Association members from places other than Los Angeles and Pasadena. To local members the hope is expressed, that physicians who reside in Los Angeles County will make special efforts to so arrange their professional work that all, or nearly all, of the entire session may be attended. If the annual session of the California Medical Association is of enough worth and importance to warrant long journeys by many members it would seem reasonable to assume that local members who live within easy access to Pasadena will also be able to find the meetings valuable. In these strenuous days when men must stand shoulder to shoulder, there is no better time to become acquainted and to develop the group spirit than through attendance at an annual session of the California Medical Association. You are urged therefore, to make a special effort to attend this year's annual session at Pasadena.

ANNUAL SESSION PAPERS—NEW RULES IN REGARD THERETO

How the Scientific Sections of the California Medical Association Have Grown.—Growth and development in an organization necessarily make for new conditions and problems. Not so many years ago the annual sessions of the California Medical Association consisted of only three sections, one for general medicine, another for general surgery, and a third for eye, ear, nose and throat diseases. As the years have gone by the number of sections has gradually increased, so that at the present time the California Medical Association has twelve sections, as follows: anesthesiology; dermatology and syphilology; eye, ear, nose and throat; general medicine; general surgery; industrial medicine and surgery; neuropsychiatry; obstetrics and gynecology; pathology and bacteriology; pediatrics; radiology (including roentgenology and radium therapy); and urology.

At each of these sections six or more papers are usually read, which means that one hundred papers or more are now read at each annual session. In addition to papers read at the scientific sessions, guest speakers' papers are presented at the general meetings.

* * *

The Larger Number of Sections Have Brought More Papers to the Editorial Desk.—Years ago, in order to have an ample supply of copy at the disposal of the official journal of the California Medical Association, it was necessary for the editor to not only secure all papers read at the annual session, but in addition to be constantly on watch for papers that were read at county medical meetings. It was during that period that the by-law came into existence, which provided that all papers which were read at an annual session of the California Medical Association should automatically become the property of the Association, each paper so received to be then printed in the official journal.

In recent years, with some twelve sections in full operation and with some of these sections having a larger number of papers than the average, there have come to the editorial desk more papers from each annual session than could be printed in the succeeding twelve months, creating thereby an embarrassing situation. (See page 430 of the June, 1931, CALIFORNIA AND WESTERN MEDICINE for report of editors in which this situation is discussed.)

This overplus of annual session manuscript copy has become so great in the last year or two that it has been necessary to return manuscripts to some of the essayists whose papers were of a rather technical nature, with the suggestion that because of such specialized nature, a more technical publication than a state society journal would no doubt be glad to print the papers. The California Medical Association Committee on Publications has been deeply appreciative of the coöperation of those members to whom manuscripts have been returned. The willingness of members to abide by the new conditions which have come into existence also made possible the acceptance of a limited number of papers of more general interest which were read before some of our county medical societies. For it is to be remembered that the official journal of the California Medical Association aims not only to present annual session proceedings, but to record the activities of the county units of the California Medical Association as much as may be possible.

* * *

Council Referred the Surplus Paper Problem to the Section Officers and Scientific Program Committee.—The whole subject has been given considerable thought and discussion at Council meetings during the last two or three years, and it was recently decided to have the entire matter considered by the Section Chairmen and Secretaries when they met with the members of the Committee on Scientific Program to elaborate the final scientific program for the Pasadena session.

At the said meeting the resolution which is printed below was adopted. The instructions in the resolution suggested editorial comment thereon. It will be noted that the resolution which follows states that while all papers which will be read at the Pasadena annual session automatically become the property of the Association (to be turned over to the Association Secretary through the section officers) that it will not be possible to print all such papers in the official journal. This action which was thus taken was made necessary in order to permit CALIFORNIA AND WESTERN MEDICINE to catch up in its unpublished manuscripts. Otherwise some manuscripts which will be read at Pasadena in May, 1932, may remain in the files from one to two years before publication can be made. If the journal could be increased in size, it would be easy to solve the problem. Unfortunately, however, printer's ink is expensive and an increase in journal size, especially in these times, is quite out of the question. On that ac-

count it has become necessary to provide for the release of papers on technical or very specialized subjects, so that such manuscripts may be printed in specialty journals.

* * *

Resolution and Action Taken.—The resolution which the Section Officers and Scientific Program Committee recommended and which has been accepted by the Executive Committee, follows:

"After consideration of the decision of the Council, and a study of the discussion pertinent thereto—in connection with the limitation of papers to be presented on the several section programs, and the recommendation that the officers of each section designate which papers of their respective sections shall be published—we, the Program Committee for the sixty-first annual session of the California Medical Association, respectfully submit the following resolution:

"*Resolved*, That the Council be urged to go on record to the effect that papers for presentation at the annual session are accepted for reading, but that publication in our official journal, CALIFORNIA AND WESTERN MEDICINE, cannot be guaranteed; and that publication of this decision, with a proper explanation of its necessity, be accorded a prominent place in our official journal. An editorial regarding this matter is our suggestion."

SOME CULTIST MEDICINE EMANATIONS

Nonsectarian and Sectarian Proponents Have No Common Basis for Discussion.—As a rule, members of the medical profession who have been trained in and who practice nonsectarian medicine pay very little attention to the sectarian activities of cultist practitioners.

This indifference may be explained in part by the fact that a discussion by individuals of respective beliefs, policies or activities, when one group approaches its work with a nonsectarian background and outlook, while the other expresses itself from the standpoint of sectarian and often preformed beliefs, in the nature of things, cannot lead to harmony of opinion. Those who are nonsectarians and who approach scientific work with open minds and in the light of knowledge as brought forth from day to day, can find no common basis of understanding with those who attempt to solve scientific problems with a sectarian viewpoint background or with premises based on preconceived theories.

Two other reasons for noncommunion between nonsectarians and sectarians, so far as healing art practice is concerned, rest on the higher educational and training standards which are demanded in acceptable nonsectarian institutions of healing art learning, and also on the very different approach by the nonsectarian group to ethical, commercial and publicity activities.

Abstract discussions of certain phases of sectarian or cultist medicine are therefore, in one sense, useless. Nevertheless, persons, organizations and institutions should be judged by what they are and what the records show, rather than by what may be adroitly professed. There should be no objection to giving publicity to records, if the records present the true facts. Thus it may be

assumed that letters gotten by a group, by themselves and for themselves, present the truth as the sponsors of the letters understand the same. With that thought in mind, this number of CALIFORNIA AND WESTERN MEDICINE prints copies of two series of letters, which should stimulate thought as to their meaning, intent and significance.

* * *

First, as Regards Some Letters Sent Out by a School of Chiropractic.—Elsewhere in this issue are printed a series of letters and enclosures sent out by one of the chiropractic schools of California. The general tone of the letters and the information contained therein concerning the curricula of this cultist group should not be without interest. Especially important, however, are the letters dealing with chiropractic courses in medicine and surgery and the implied suggestion that those persons who take such courses may, by action of a future legislature, later be rewarded with licenses to practice medicine and surgery in California. (See Miscellany column, page 294.)

No less interesting than the above series of letters, is an excerpt from this year's report of the Board of Medical Examiners, recently off the press, in which the change of name of a chiropractic school is commented upon. It seems strange that in a great commonwealth such as California, and in this enlightened day and age, that the safeguards thrown about the granting of degrees, professional and of other kinds, should have been so insufficient as are there indicated. (For this excerpt, see page 298.)

* * *

Second, as Regards a Letter Sent Out by Some Osteopathic Groups.—Of lesser interest, but also, not the less without its lesson, is the manner in which some organizations in the osteopathic profession recently proposed to start child welfare clinics in churches, seemingly with no other equipment than a spare room. Here is seen an approach to clinic work that is in strong contrast to the modern day standards set up by nonsectarian medicine. (For copies of these letters, see page 301.)

It has been stated to us that one church pastor who called up in regard to equipment that might be needed was told that nothing other than a spare room was necessary, but that it was most desirable that the letter be read from the pulpit. Whether this pulpit publicity was intended to attract patients to the clinic or to lay the foundation for reputation in altruistic endeavor, is not known.

The communications are reprinted and submitted for whatever worth they may have. Readers of CALIFORNIA AND WESTERN MEDICINE can come to their own conclusions in regard thereto. The copies of letters that are reprinted in this issue certainly contain much food for thought. Their meaning is not only to be interpreted by what is said, but by what is implied between the lines.

TAX-SUPPORTED HOSPITALS IN CALIFORNIA

The Publications of "The Committee on the Costs of Medical Care."—No committee of national scope that has come into existence during recent years has received the unusual amount of publicity which has been given to "The Committee on the Costs of Medical Care." A fellow Californian, Dr. Ray Lyman Wilbur, of Stanford University, at present Secretary of the U. S. Department of the Interior, is chairman of this national committee.

One of the surveys or reports which has thus far been printed under the sponsorship of this national committee is Publication No. 12, which deals with the "Medical Facilities of San Joaquin County of California."*

Another publication, No. 13, is a survey of medical facilities of the State of Vermont. Each of these publications is of very great interest, but Volume 12, which deals with the San Joaquin Valley conditions, should particularly appeal to members of the medical profession of California. In later issues it may be possible to discuss these two reports and to comment on some of the relative findings.

* * *

Why the San Joaquin County Survey Has Special Interest at This Time.—For the moment, some excerpts from the San Joaquin survey may be in order in CALIFORNIA AND WESTERN MEDICINE. Therefore, in the Miscellany Department of this issue, Chapter 12 of the *Survey of the Medical Facilities of San Joaquin County* is reprinted, because it deals with the scope and work of one of the county hospitals of California. The presentation of facts as given in Chapter 12 should be of interest, because the problems which face San Joaquin County are analogous to some which have been met with in other counties of California. (For reprint of Chapter 12, see page 298.)

A special reason for giving the space to a discussion of tax-supported hospitals of the San Joaquin Survey is because the second general meeting of the California Medical Association, to be held on Tuesday, May 3, at 11:30 a. m., at the Pasadena Annual Session will be given over to a discussion of medical economic topics. The Committee on Medical Economics will be in charge of the meeting and a large attendance is hoped for and free discussion invited. It is possible that tax-supported hospitals of California will be directly or indirectly referred to on that occasion.

Analyses such as this survey of the San Joaquin hospitals are quite worth the while, when based on honest desire for fact finding. To properly understand and interpret the conditions which nowadays face public hospitals and public health agencies it is important that we possess that knowledge which makes permissible the establishment of legitimate premises, which in turn can

* Publication No. 12. A Survey of the Medical Facilities of San Joaquin County, California: 1929. By Nathan Sinal, D. P. H., et al., 230 pages. October, 1931. Paper, \$1.00. University of Chicago Press, Chicago, Illinois.

be used in drawing logical conclusions. If the report of the National Committee on Costs of Medical Care, in so far as it relates to tax-supported hospitals, is in error, the reprinting of Chapter 12 should bring to light any improper statements.

* * *

Other Papers of Medical-Economic Interest in This Issue of California and Western Medicine.—This issue of CALIFORNIA AND WESTERN MEDICINE contains several other papers which would seem to be of special interest at a time when members of the California Medical Association are about to convene in annual session to discuss the scientific and economic welfare of the organized medical profession. Thus may be mentioned:

The article by Van Zandt on "State Medical Libraries," in which the value of such institutions as exemplified by past experience is portrayed; (See page 217.)

The article by Stone of Pasadena in which some of the deficiencies of modern hospitals and hospital practice are outlined; (See page 220.)

The article by Leland, director of the new Bureau of Medical Economics of the American Medical Association, in which a good analysis is made of modern-day "Contract Practice."

Whether you go to the Pasadena annual session or not, you are urged to read these papers. To be forewarned is to be forearmed. We owe it to ourselves and to our profession to have an intelligent and comprehensive understanding of these important subjects. With such understanding, we will be in position to discuss them.

TWO RESOLUTIONS FOR THE A. M. A. MEETING AT NEW ORLEANS

A California Resolution Regarding the Cuban Health Societies.—The Executive Committee of the California Medical Association recently recommended that the delegates from California to the American Medical Association be instructed to submit a resolution embodying the recommendation made on page 118 of the February CALIFORNIA AND WESTERN MEDICINE. That recommendation contained the suggestion that the American Medical Association House of Delegates should request the Board of Trustees of the national organization to make, at an early day, a real survey of the "Spanish Health Clubs and Societies" of Cuba, and that the results of the findings be transmitted to the constituent state associations of the American Medical Association. The next session of the American Medical Association will be held at New Orleans. It is hoped that the American Medical Association authorities will see fit to invite the Cuban Medical Federation to send a fraternal delegate to that meeting.

* * *

A Michigan State Medical Society Resolution Regarding the English Dole System.—The February *American Medical Association Bulletin* contained a notice that the Michigan State Medical

Society proposed to submit to the American Medical Association House of Delegates a somewhat similar resolution, but in relation to the European dole systems. The American Dental Association has already made such a survey in relation to dental practice. It would seem eminently proper that our national medical organization, with its splendid facilities and resources, should take the initiative in fact finding studies such as these. The reports could then be sent, not only to those constituent state medical societies which are making special studies of these problems, but also to the other state associations which, though seemingly less interested, nevertheless need to be awakened to their responsibilities in these important medical economic matters which everywhere face the medical profession. With the rapid development of health insurance organizations in many parts of the United States, it is becoming increasingly evident that "time is part of the essence of the contract" in these matters and that active steps should be taken to obtain the information which will enable members of the American medical profession to come to clearer conclusions on what should be done.

Some excerpts from the Michigan State Medical Society resolutions follow:

1. WHEREAS, The present unrest is bringing forth an increasing discussion and demand for some form of federal dole for relief of the indigent; and

WHEREAS, There is increasing agitation and solicitation that the Federal and State Governments provide a system of medical care for the people in some form or other similar to the British and French enactments; and

WHEREAS, Our only informative data emanate from outside organizations or individuals often biased or socialistically inclined; and . . .

Be It Resolved, That the Board of Trustees of the American Medical Association be requested to immediately institute a survey and compile facts upon the effect of doles and federal health and sick benefit appropriations and administration upon the practice of medicine in England and France and to compile a summary upon the effect such systems would have upon medical practice and scientific progress in the United States; and

Be It Resolved, That this information be made available to constituent state medical societies.

ARTICLES IN THIS PROGRAM NUMBER OF CALIFORNIA AND WESTERN MEDICINE

Special Features and Articles in This Number. This April number of CALIFORNIA AND WESTERN MEDICINE, in its text, has a somewhat different appearance than the usual issues of the official journal of the California Medical Association. This change from the ordinary form is due to the fact that the entire program of the annual session, which will be held on May 2 to 5 at the Hotel Huntington in Pasadena, is printed in this issue. The attention of members who are contemplating registration at this annual session is called to this program, which begins on page 256. It is hoped the presentation of text and of photographs of annual session guest speakers and officers, and of illustrations of the Hotel Huntington will all be of more or less interest to members of the California Medical Association. An inspection of the program at once indicates the extent to which the California Medical Association

has developed and the wide scope of its activities.

Attention is also called to the fact that this April number of CALIFORNIA AND WESTERN MEDICINE contains a lesser number of scientific papers than usual. This insertion of special articles of a general nature and of papers having to do with different phases of medical economic problems was intentional. Inasmuch as medical economic problems will be much discussed at this forthcoming Pasadena session, it was felt that the presentation of papers dealing with such topics would stimulate exchange of viewpoints by members who were in attendance, both in personal conversations and in meetings called for such specific purpose.

The articles by Van Zandt, Stone, and Leland are referred to elsewhere in this editorial column.

Comment may be here made concerning the article entitled "Organized Medical Care," which consists of excerpts by a fellow Californian, Dr. Ray Lyman Wilbur, former president of Stanford University, and now secretary of the United States Department of the Interior, who has been largely responsible for bringing the national Committee on the Costs of Medical Care into existence. (See page 233.)

In the Miscellany department will also be found a number of articles having a relation to medical economic activities. It is hoped that many readers of CALIFORNIA AND WESTERN MEDICINE will take the time to read the topics discussed under the captions: "Medical Publicity—Good and Bad"; "Cultist Medicine"; "San Joaquin Tax-Supported Hospitals"; and "Clinics—and Clinics." (See pages 294, 298, and 301.)

After some of the above copy was sent to the printer, some new events happened in regard to one of the California cults, thus emphasizing more than ever the need of careful study on the part of practitioners of nonsectarian medicine of the important subject of healing art licensure. That and other topics, however, must be carried over for discussion in future issues. We can only repeat that a perusal and survey of the articles here referred to, particularly by those California Medical Association members who will be in attendance at the Pasadena meetings, cannot be other than beneficial to the interest of organized medicine in California.

Science and Research.—J. H. Thompson, a young biochemist, has found that an extract of parathyroid gland of cattle will restrict or prevent growth without jeopardizing the health of the organism. The possible value of this discovery in the treatment of cancer is being investigated in the laboratories of the Royal College of Surgeons of England and at King's College. Sir Arthur Keith has suggested that an important application of this discovery might be in the treatment of acromegaly or gigantism. At the suggestion of Sir Julian Huxley the extract was used on a young salamander. The result was the same as that found when the extract was used on rats and rabbits—there was a marked growth-retarding effect on the animals used in the experiment. The treated rabbits remain at about half the size of the untreated rabbits. It was found that if a 20 per cent solution of this extract was used to moisten water cress seeds, germination was completely stopped.—*Pennsylvania Medical Journal*, March, 1932.

MEDICINE TODAY

This department of California and Western Medicine presents editorial comment by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to every member of the California, Nevada and Utah Medical Associations to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

Radium in the Treatment of Cancer of the Breast.—For many years there has been an increasing interest in the use of radium in the treatment of malignancies in the various regions of the body. Its use in carcinoma of the skin, tongue and cervix has been accepted, but its use in cancers of the breast has not been so prevalent. During the last five years, workers in the Memorial Hospital have been using gold radon seeds and gold radon tubes as sources of interstitial radiation in inoperable carcinoma of the breast, thus supplementing surface radiation.

In England, under the able tutelage of the Westminster Hospital group, especially Keynes, and the kindly encouragement of Lord Berkeley Moynihan, there has been conducted a careful study of the use of small amounts of radium incased in platinum needles in breast malignancies. Probably the first surgeon who used highly filtered radium in breast cancers was Sampson Handley, as a postoperative prophylactic measure in the axilla, underneath the clavicle, and in the intercostal spaces close to the sternum. It remained, however, for Keynes and Cade of the Westminster Hospital, and Fitzwilliams of the Mount Vernon Hospital, to use it in primary cases. These workers do not rely on surface irradiation, but on the surgical application of radium in the form of multiple platinum needles with a wall thickness of .5 millimeters and a length of from 2.7 to 6 centimeters, each containing from 1—1.3—2—3 milligrams of radium element. They are accurately placed through stab wounds 1.5 centimeters apart and are inserted in such a way that not only the primary lesion but also the lymph draining areas are attacked. In other words, the aim is to perform a "Radium Halstead."

The needles are inserted in the following locations:

- (a) Around the primary lesion.
- (b) In the axilla—parallel to the large vessels.
- (c) Underneath the pectoralis major.
- (d) In the costo-coracoid region.
- (e) In the supraclavicular region.
- (f) In the intercostal spaces along the internal mammary group of nodes.

Reference to these locations shows that the irradiation affects not only the areas that are removed surgically, but those regions which are often the seat of metastasis, namely, the supraclavicular nodes and the internal mammary nodes in the anterior mediastinum.

What do these men report? The primary lesion may completely disappear and the lymph nodes frequently melt away in a short time. After a period of from four to six months, when the

breast itself has returned to almost normal size, a mass may sometimes remain palpable. When this is removed, it consists of fibrous tissue. In some patients there is no evidence of carcinoma on microscopic examination, while in others a few viable cells are found imbedded in a heavy mass of this fibrous tissue.

The work has been conducted largely in the inoperable group. In his latest report, Keynes, at a lecture before the Edinburgh Medical Surgical Society, gives his result in eighty-nine inoperable cases. By referring to his case reports, one sees that over half of the patients are living from two to five years, and one over six years. In six patients there is no evidence of the disease remaining, all having been verified by biopsy. Whether it is justifiable to rely on radium alone in cancer of the breast remains to be seen, but at least it appears certain that radium, when applied through surgical intervention, gives a greater expectancy than either surgery alone or radium alone when applied as a surface application.

As Cade says, "One fact stands out clearly: No patient, however inoperable, should remain untreated."

ORVILLE N. MELAND, Los Angeles.

¹ Handley: The Place of Radium in the Treatment of Breast Cancer. *The Practitioner* (October), 1930.

² Keynes: (a) The Treatment of Primary Carcinoma of the Breast with Radium. *The Practitioner* (October), 1930. (b) The Radium Treatment of Primary Carcinoma of the Breast. *Edinburgh Medical Journal*, Vol. 38, No. 2, p. 19.

³ Cade: Radium Treatment of Cancer of the Breast. *The Practitioner* (October), 1930.

⁴ Cade: Radium Treatment of Cancer. Churchill-London.

⁵ Fitzwilliams: The Modern Treatment of Carcinoma of the Breast. *The Practitioner* (October), 1930.

Columbia Adopts Master's Degree in Graduate Medicine.—Columbia University has adopted the degree of master of science in graduate medical education for the purpose of setting a standard in preparation for the practice of medical specialties, it was announced January 3. The degree requires not less than three years of study following graduation from a recognized medical school and the general internship. At least one calendar year of the three must be spent at Columbia. Not less than eighteen months of the time must be spent in hospitals, clinics, and diagnostic laboratories of the specialty elected. Written, oral, and practical examinations and a dissertation may be prescribed. The new degree is non-specific; that is, it does not carry a designation of the specific field of study to which the student has devoted himself, according to the announcement.—*Federation Bulletin*, February, 1932.

Osler taught his students that only he whose tongue was guiltless of criticism could be the friend of every man.—*Reminiscences of Osler by William Thayer*.

PROGRAM

THE SIXTY-FIRST ANNUAL SESSION of the CALIFORNIA MEDICAL ASSOCIATION

TO BE HELD AT

HOTEL HUNTINGTON, PASADENA

MAY 2-5, 1932

OFFICERS AND COMMITTEES, 1932

GENERAL OFFICERS

JUNIUS B. HARRIS, Sacramento, President
JOSEPH M. KING, Los Angeles, President-Elect
EDWARD M. PALLETTE, Los Angeles, Speaker of House of Delegates
JOHN H. GRAVES, San Francisco, Vice-Speaker of House of Delegates
EMMA W. POPE, San Francisco, Secretary-Treasurer
GEORGE H. KRESS, Los Angeles, Editor
HARTLEY F. PEART, San Francisco, General Counsel
HUBERT T. MORROW, Los Angeles, Associate General Counsel

COUNCILORS

First District

Mott H. Arnold, San Diego (1932)
Imperial, Orange, Riverside and San Diego Counties

Second District

William Duffield, Los Angeles (1933)
Los Angeles County

Third District

Henry J. Ullmann, Santa Barbara (1934)
Kern, San Bernardino, San Luis Obispo, Santa Barbara
and Ventura Counties

Fourth District

Fred R. DeLappe, Modesto (1932)
Calaveras, Fresno, Inyo, Kings, Madera, Mariposa,
Merced, Mono, San Joaquin, Stanislaus, Tulare
and Tuolumne Counties

Fifth District

Alfred L. Phillips, Santa Cruz (1933)
Monterey, San Benito, San Mateo, Santa Clara
and Santa Cruz Counties

Sixth District

Karl L. Schaupp, San Francisco (1934)
San Francisco County

Seventh District

Oliver D. Hamlin, Oakland (1932)
Alameda and Contra Costa Counties

Eighth District

Robert A. Peers, Colfax (1933)
Alpine, Amador, Butte, Colusa, El Dorado, Glenn, Lassen,
Modoc, Nevada, Placer, Plumas, Sacramento, Shasta,
Sierra, Sutter, Tehama, Yolo and Yuba Counties

Ninth District

Henry S. Rogers, Petaluma (1934)
Del Norte, Humboldt, Lake, Marin, Mendocino, Napa,
Siskiyou, Solano, Sonoma and Trinity Counties

Councilors-at-Large

George G. Hunter, Los Angeles (1932)
Ruggles A. Cushman, Santa Ana (1933)
Wm. H. Kiger, Los Angeles (1934)
Joseph Catton, San Francisco (1932)
T. Henshaw Kelly, San Francisco (1933)
George G. Reinle, Oakland (1934)

DELEGATES AND ALTERNATES TO A. M. A.

Delegates

Dudley Smith (1932-1933)
Oakland
Wm. Duffield (1932-1933)
Los Angeles
Fitch C. E. Mattison (1932-1933)
Pasadena
Irving Ingber (1932)
San Francisco
Percy T. Magan (1932)
Los Angeles
Junius B. Harris (1932)
Sacramento
William R. Molony, Sr. (1932)
Los Angeles

Alternates

LeRoy Brooks
San Francisco
William H. Gilbert
Los Angeles
Fred B. Clarke
Long Beach
Charles A. Dukes
Oakland
Charles D. Lockwood
Pasadena
John H. Shephard
San Jose
John C. Ruddock
Los Angeles

STANDING COMMITTEES

Executive Committee

The President, the President-Elect, the Speaker of the House of Delegates, the Secretary-Treasurer, the Editor, and the Chairman of the Auditing Committee. (Committee Chairman, T. Henshaw Kelly; Secretary, Emma W. Pope.)

Auditing Committee

T. Henshaw Kelly (Chairman).....San Francisco
Joseph Catton San Francisco
Karl L. Schaupp San Francisco

Committee on Associated Societies and Technical Groups

Harold A. Thompson, San Diego.....1932
William Duffield, Los Angeles.....1933
R. Manning Clarke (Chairman), Los Angeles.....1934

Committee on Extension Lectures

James F. Churchill, San Diego.....1932
Robert A. Peers, Colfax.....1933
Robert T. Legge (Chairman), Berkeley.....1934
The Secretary Ex-officio

Committee on Health and Public Instruction

Fred B. Clarke (Chairman), Long Beach.....1932
Henry S. Rogers, Petaluma.....1933
Langley Porter, San Francisco.....1934

Committee on History and Obituaries

Charles D. Ball (Chairman), Santa Ana.....1932
Emmet Rixford, San Francisco.....1933
George D. Lyman, San Francisco.....1934
The Secretary Ex-officio
The Editor Ex-officio

Committee on Hospitals, Dispensaries and Clinics

John C. Ruddock (Chairman), Los Angeles.....1932
Wallace Dodge, Los Angeles.....1933
Karl L. Schaupp, San Francisco.....1934

Committee on Industrial Practice

Packard Thurber (Chairman), Los Angeles.....1932
Mott H. Arnold, San Diego.....1933
Daniel Crosby, Oakland.....1934

Committee on Medical Defense

George G. Reinle, Oakland.....1932
Fred R. DeLappe, Modesto.....1933
Henry Snure, Sr. (Chairman), Los Angeles.....1934

Committee on Medical Economics

John H. Graves (Chairman), San Francisco.....1932
Ruggles A. Cushman, Santa Ana.....1933
Lyell C. Kinney, San Diego.....1934

Committee on Medical Education and Medical Institutions

George Dock (Chairman), Pasadena.....1932
George G. Hunter, Los Angeles.....1933
H. A. L. Ryfkogel, San Francisco.....1934

Committee on Membership and Organization

Harlan Shoemaker, Los Angeles.....1932
Jesse W. Barnes, Stockton.....1933
LeRoy Brooks (Chairman), San Francisco.....1934
The Secretary Ex-officio

Committee on Publications

Morton R. Gibbons, San Francisco.....1932
Frederick F. Gundrum, Sacramento.....1933
Percy T. Magan (Chairman), Los Angeles.....1934
The Secretary Ex-officio
The Editor Ex-officio

Committee on Public Policy and Legislation

Junius B. Harris (Chairman), Sacramento.....1932
Joseph Catton, San Francisco.....1933
William Duffield, Los Angeles.....1934
The President-elect Ex-officio

Committee on Scientific Work

John Homer Woolsey, San Francisco.....1932
F. M. Pottenger, Monrovia.....1933
Lemuel P. Adams, Oakland.....1934
The Secretary (Chairman).....Ex-officio
R. Manning Clarke, Secretary Section of General Medicine, Los Angeles.....Ex-officio
Stanley H. Mentzer, Secretary Section of General Surgery, San Francisco.....Ex-officio

DEPARTMENT OF PUBLIC RELATIONS

Walter M. Dickie, M. D., Director

Committee on Public Relations

John H. Graves, M. D., Chairman

Fred B. Clarke, Chairman, Committee on Health and Public Instruction.

John C. Ruddock, Chairman, Committee on Hospitals, Dispensaries and Clinics.

Charles A. Dukes, Chairman of Cancer Commission.

Junius B. Harris, President, ex-officio.

Joseph M. King, President-elect, ex-officio.

Emma W. Pope, Secretary, ex-officio.

Communications for the Department of Public Relations should be addressed to the director, Walter M. Dickie, M. D., Room 2039, 450 Sutter Street, San Francisco.

(Text continued on page 262)

GUEST SPEAKERS AT THE SIXTY-FIRST ANNUAL SESSION CALIFORNIA MEDICAL ASSOCIATION



SAMUEL A. LEVINE, M. D.
Assistant Professor of Medicine, Harvard University Medical School, Boston, Massachusetts



ROBERT B. GREENOUGH, M. D.
Assistant Professor of Surgery, Harvard University Medical School, Boston, Massachusetts



KARL A. MENNINGER, M. D.
Neuropsychiatrist, 306 East Twelfth Street,
Kansas City, Missouri



FRED H. ALBEE, M. D.
Professor of Orthopedic Surgery, Columbia University College of Physicians and Surgeons,
New York

OFFICERS OF THE CALIFORNIA MEDICAL ASSOCIATION



JUNIUS B. HARRIS, M. D.
President of the California Medical Association



OLIVER D. HAMLIN
Chairman of the Council of the California
Medical Association



EDWARD M. PALLETTE
Speaker of House of Delegates
California Medical Association

SECTION OFFICERS



MARY E. BOTSFORD
Chairman Anesthesiology



JAMES C. E. KING
Chairman Dermatology



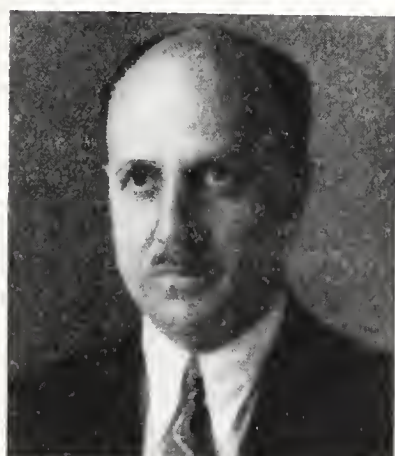
FREDERICK C. CORDES
Chairman Eye, Ear, Nose and
Throat



CAROLINE B. PALMER
Secretary Anesthesiology



C. RAY LOUNSBERRY
Secretary Dermatology



ISAAC H. JONES
Secretary Eye, Ear, Nose and
Throat



VERNE R. MASON
Chairman General Medicine



CHARLES T. STURGEON
Chairman General Surgery



LEROY C. ABBOTT
Chairman Industrial Medicine
and Surgery

SECTION OFFICERS



R. MANNING CLARKE
Secretary General Medicine



STANLEY H. MENTZER
Secretary General Surgery



JOHN J. LOUTZENHEISER
Secretary Industrial Medicine
and Surgery



HENRY G. MEHRTENS
Chairman Neuropsychiatry



CLARENCE A. DePUY
Chairman Obstetrics and
Gynecology



E. PAUL COOK
Chairman Pediatrics



H. DOUGLAS EATON
Secretary Neuropsychiatry



ALICE F. MAXWELL
Secretary Obstetrics and
Gynecology



WILLIAM M. HAPP
Secretary Pediatrics

SECTION OFFICERS



ZERA E. BOLIN
Chairman, Pathology and
Bacteriology



L. HENRY GARLAND
Chairman Radiology



NATHAN G. HALE
Chairman Urology



GEORGE D. MANER
Secretary Pathology and Bacteriology



HENRY SNURE
Secretary Radiology



JAMES C. NEGLEY
Secretary Urology



The grounds of the Huntington are superb. Every kind of shrubbery, flower and tree that grows in California may be found there. Tennis courts, a crystal-clear swimming pool, Japanese Gardens, and badminton courts all combine to make the hotel a most attractive place.

The interior is equally as attractive. The massive ballroom is used for gay dancing parties and talking pictures. The dining room, though it has a spirit of dignity, also radiates hospitality. Little shops in the hotel make it very convenient for the guests. In the patio, shaded by huge palm trees, and banked with cool ferns and lawn, is an outdoor dining room. It is a festive place with its colored umbrellas and tables. There is also an art gallery and a spacious lobby overlooking the valley.

(Continued from page 256)

CANCER COMMISSION

Charles A. Dukes, Chairman.....Oakland
 Lyell C. Kinney, Vice-Chairman.....San Diego
 Alson R. Kilgore, Secretary.....San Francisco
 Harold Brunn San Francisco
 William Ophuls San Francisco
 Henry J. Ullmann Santa Barbara
 Orville Meland Los Angeles
 A. Herman Zeiler.....Los Angeles
 Clarence G. Toland.....Los Angeles

Communications for the Cancer Commission should be addressed to the Secretary, A. R. Kilgore, M. D., Room 2039, 450 Sutter Street, San Francisco.

Special Committee on Clinical and Research Prizes

Emmet Rixford, San Francisco.....1932
 George Dock (Chairman), Pasadena.....1933
 Eugene S. Kilgore, San Francisco.....1934

Each year the California Medical Association offers two prizes of One Hundred and Fifty Dollars each, with certificates of award, for the two best papers on clinical and research subjects. Full information concerning the conditions laid down in these competitions may be had by addressing the Association Secretary.

LOCAL COMMITTEES FOR ANNUAL SESSION

Fitch C. E. Mattison, M. D., General Chairman

Advisory Committee

Junius B. Harris, M. D., President of California State Medical Association
 Joseph M. King, M. D., President-Elect
 Emma W. Pope, M. D., Secretary-Treasurer
 Edward M. Palette, M. D., Speaker of House of Delegates
 George H. Kress, M. D., Editor of California and Western Medicine
 William Duffield, M. D., Councilor of Second District
 George G. Hunter, M. D., Councilor-at-Large
 Wm. R. Molony, M. D., President of Los Angeles County Medical Association
 Harry H. Wilson, M. D., Secretary-Treasurer of Los Angeles County Medical Association
 Granville MacGowan, M. D.; Thos. C. Myers, M. D.; Robert V. Day, M. D.; Donald Frick, M. D.; Fitch C. E. Mattison, M. D., Trustees of Los Angeles County Medical Association

Local Executive Committee on Arrangements

Fitch C. E. Mattison, M. D., Chairman.
 John H. Breyer, M. D., Secretary
 Wm. R. Molony, M. D., President of Los Angeles County Medical Association
 Harry H. Wilson, M. D., Secretary-Treasurer of Los Angeles County Medical Association
 Robert E. Ramsay, M. D., President of Pasadena Branch
 Leroy B. Sherry, M. D., Councilor-at-Large, Los Angeles Medical Association

Committee on Registration

W. C. Stephens, M. D., Chairman
 Ed. D. Kremers, M. D. L. G. Hunnicutt, M. D.
 Louise Wagner, M. D. Caroline Leete, M. D.
 E. B. Dewey, M. D. Lillian Mitchell, M. D.

Committee on President's Dinner and Ball and**Al Fresco Luncheon**

Philip S. Doane, M. D., Chairman
 Leroy B. Sherry, M. D. J. L. Busby, M. D.

Committee on Distinguished Guests

F. M. Pottenger, M. D., Chairman
 George Dock, M. D. C. D. Lockwood, M. D.

Committee on Golf

J. W. Crossan, M. D., Chairman
 Leon G. Campbell, M. D. Robert K. Gustafson, M. D.

Committee on Transportation and Rides

Harry T. Upshaw, M. D., Chairman
 Frank W. Hodgdon, M. D. Philips J. Edson, M. D.

Committee on Publicity

Harry H. Wilson, M. D., Chairman
 Wm. R. Molony, M. D. Stanley K. Cochems, M. D.
 George H. Kress, M. D.

Committee on Finances

Leroy B. Sherry, M. D., Chairman
 John H. Breyer, M. D., Fitch C. E. Mattison, M. D.
 Secretary-Treasurer

Committee on Pathologic Exhibits

A. G. Foord, M. D., Chairman
 B. F. Sturdivant, M. D. G. F. Ruediger, M. D.

GENERAL INFORMATION

Registration and Information.—The registration and information desk is located in the lobby, Hotel Huntington. All persons attending the convention, whether members or not, are requested to register immediately on arrival. Beginning Monday, May 2, registration secretaries will be on duty daily from 9 a. m. until 5 p. m.

In addition to the table at which the State Association clerks will handle registration and give out badges, there will be tables with clerks from the Los Angeles County and Pasadena Medical Societies, who will give information on local matters and social events. Fraternities and special societies will have special tables and representatives. See also announcements on bulletin boards.

Membership Cards.—Every member in good standing in the California Medical Association has been issued an official membership card for 1932. Membership cards must be shown at the registration desk.

Guests and Visitors.—All guests and visitors are requested to register. All general meetings and scientific meetings are open to visitors and guests.

Badges.—Four kinds of badges will be issued by the registration bureau:

1. **Members.**—Only active, associate, retired or honorary members of the California Medical Association will be issued the usual membership badge. Members must show membership cards when they register.

2. **Guests.**—A guest badge will be issued to all fraternal delegates, visiting physicians, wives of members, and technical specialists who are attending the 1932 session.

3. **Delegates and Alternates.**—The usual official badge for each delegate and alternate is provided for this purpose, and will be issued only to one authorized to wear it.

4. **Officers.**—An official badge is provided for all officers and members of the Council.

Suggestions and Constructive Criticism.—The officers and committees have tried to do everything possible to make the session a success. Suggestions and constructive criticism calculated to make future sessions more useful will be welcomed by any of the officers. Complaints of whatever character should be promptly made to the registration desk, where they will receive attention.

Social Program.—The social program is in the hands of the local Committee of Arrangements, and is published elsewhere in this program.

Press Representatives.—Accredited press representatives are welcome, and they will be accorded every possible courtesy.

Publicity.—All publicity is in the hands of a Publicity Committee. It is requested that all persons having matter of "news" value report it to this committee. It is particularly requested that all "news" about any phase of the convention be given out through the official committee, and in no other way. See list of local committees.

Clinics.—Owing to time necessary to reach hospitals in Los Angeles and Pasadena, it has been decided to have no scheduled clinics at this annual session.

Golf.—See announcement on page 267.

DINNERS AND LUNCHEONS

See Bulletin Boards for Other Announcements

Official Dinners and Luncheons

President's Dinner.—Tuesday evening, 7:30 p. m., in main dining room, Hotel Huntington.

President's Ball.—10 p. m. in Ball Room. Tickets covering both dinner and ball, \$3.50.

Cancer Commission Luncheon.—The Cancer Commission of the California Medical Association request all those who have taken part in the committee work to be present at a luncheon in the Main Dining Room at 1 p. m.

Councilors, County Officers and Standing Committees Luncheon.—All county officers, standing committees and officers and councilors of the California Medical Association are invited to a luncheon on Tuesday, May 3, at 1 p. m., in the Crystal Room.

Al Fresco Luncheon with Entertainment (Aquatic Sports).—Will be held around the Pool at the Huntington, on Wednesday, May 4, at 1 p. m. Tickets, \$1.

Fraternity Gatherings.—*Phi Rho Sigma* fraternity will have a luncheon, Tuesday noon, at Huntington, as guests of Dr. Milbank Johnson, the founder of the fraternity.

Nu Sigma Nu fraternity reception in Crystal Room of Hotel Huntington, Tuesday, May 3, at 7 p. m.

Other fraternities are planning on reception gatherings for their members. Information will be available at registration desk.

Women physicians will have a dinner gathering on May 4 at 6 p. m. Information will be available at registration desk.

MEMBERSHIP, 29th ANNUAL SESSION OF HOUSE OF DELEGATES

DELEGATES—EX-OFFICIO (21)

Junlus B. Harris, Sacramento.....President
Joseph M. King, Los Angeles.....President-elect
Emma W. Pope, San Francisco.....Secretary-Treasurer
Edward M. Pallette, Los Angeles.....
.....Speaker of House of Delegates
John H. Graves, San Francisco.....
.....Vice-Speaker of House of Delegates
George H. Kress, Los Angeles.....Editor
Mott H. Arnold, San Diego (1932).....Councilor 1st District
William Duffield, Los Angeles (1933).....Councilor 2nd District
Henry J. Ullmann, Santa Barbara (1934).....
.....Councilor 3rd District
Fred R. DeLappe, Modesto (1932).....Councilor 4th District
Alfred L. Phillips, Santa Cruz (1933).....Councilor 5th District
Karl L. Schaupp, San Francisco (1934).....
.....Councilor 6th District
Oliver D. Hamlin, Oakland (1932).....Councilor 7th District
Robert A. Peers, Colfax (1933).....Councilor 8th District
Henry S. Rogers, Petaluma (1934).....Councilor 9th District
George G. Hunter, Los Angeles (1932).....Councilor-at-Large
Ruggles A. Cushman, Santa Ana (1933).....Councilor-at-Large
William H. Kiger, Los Angeles (1934).....Councilor-at-Large
Joseph Catton, San Francisco (1932).....Councilor-at-Large
T. Henshaw Kelly, San Francisco (1933).....Councilor-at-Large
George G. Reinle, Oakland (1934).....Councilor-at-Large

ELECTED DELEGATES (116)

Delegates	Alternates
Alameda County (9)	
Frank S. Baxter	Dorothy M. Allen
Benjamin W. Black	W. L. Channell
Robert A. Glenn	W. G. Donald
Henning Koford	Lloyd E. Kindall
Frank R. Makinson	T. C. Lawson
A. M. Meads	Hobart Rogers
Gertrude Moore	E. M. Taylor
Harold G. Trimble	Leland Taylor
May E. Walker	R. G. Van Nuys
Butte County (1)	
J. O. Chiapella	N. T. Enloe
Contra Costa County (1)	
U. S. Abbott	I. O. Church
Fresno County (3)	
D. I. Aller	A. E. Anderson
Guy Manson	C. O. Mitchell
F. F. Madden	J. D. Morgan
Humboldt County (1)	
Orris R. Meyers	Charles C. Falk
Imperial County (1)	
H. B. Graeser	F. A. Burger
Kern County (2)	
Frank J. Gundry	Keith S. McKee
Robert M. Jones	Joe K. Smith
Lassen-Plumas County (1)	
G. S. Martin	Dan Coll
Los Angeles County (38)	
Peter H. Blong	Walter A. Bayley
Harry V. Brown	John H. Breyer
John W. Crossan	O. W. Butler
William H. Daniel	R. Manning Clarke
Philip S. Doane	Newton Evans
John Dunlop	Llewellyn R. Lewis
J. Frank Friesen	Sven Lokrantz
Orrie E. Ghrist	Lyle G. McNeile
Scott D. Gleeten	Carl H. Parker
Carl R. Howson	Robert E. Ramsay
F. C. E. Mattison	John C. Ruddock
George D. Maner	Alfred J. Scott
James F. Percy	R. W. Schaeffer
Russell L. Sands	Eleanor Seymour
Leroy B. Sherry	Leon Shulman
F. C. Swearingen	Pierre Viole
Howard L. Updegraff	Walter F. Wessels
Harry H. Wilson	Clifford A. Wright
Elliot Alden	Edwin S. Bennett
John V. Barrow	B. C. Davies
E. W. Barton	Kenneth S. Davis
Fred B. Clarke	Walter M. Holleran
Robert V. Day	John L. Kirkpatrick
Wallace Dodge	Harry W. Martin
Paul Ferrier	H. G. McNeil
Edward W. Hayes	E. E. Moody
Walter L. Huggins	John P. Nuttall
Elmer E. Kelly	J. J. O'Brien
E. Eric Larson	George Piness
Leo J. Madsen	Carl W. Rand
Percy T. Magan	Joseph K. Swindt
William R. Molony	R. G. Taylor
W. S. Mortensen	R. A. Terry
Thomas C. Myers	Roy E. Thomas
Philip H. Stephens	George Thomason
Charles T. Sturgeon	John Vruwink
David Thomson	H. G. Westphal
C. G. Toland	H. J. Wiley

Delegates	Alternates
Marin County (1)	
H. O. Howitt	John H. Kuser
Mendocino County (1)	
Raymond Babcock	L. K. Van Allen
Merced County (1)	
Chester A. Moyle	Fred O. Lien
Monterey County (1)	
R. A. Kocher	W. M. Gratiot
Napa County (1)	
M. M. Booth	C. A. Johnson
Orange County (2)	
Dexter R. Ball	Willis P. Baker
Harry E. Zaiser	William S. Wallace
Placer County (1)	
William M. Miller	C. E. Lewis
Riverside County (2)	
Thomas A. Card	A. L. Bramkamp
C. E. Atkinson	S. H. Keller
Sacramento County (3)	
Gustave Wilson	Edward W. Beach
Philip G. Young	Maurice A. Hopkins
Edward S. Babcock	Harry M. Kanner
San Benito County (1)	
R. L. Hull	J. M. O'Donnell
San Bernardino County (3)	
Philip M. Savage	Fred B. Moor
Delbert B. Williams	Kenneth L. Dole
David C. Mock	Calvert L. Emmons
San Diego County (5)	
W. H. Geistweit, Jr.	William H. Barrow
Fraser L. Macpherson	Charles Wm. Brown
Clarence E. Rees	William D. Rolph
Donald K. Woods	Frank St. Sure
Sam J. McClendon	William O. Weiskotten
San Francisco County (16)	
Philip H. Arnot	LeRoy Brooks
Elbridge J. Best	C. Latimer Callander
Edwin L. Bruck	Elizabeth A. Davis
Edward C. Bull	G. D. Delprat
Howard W. Fleming	William Dock
Irving S. Ingber	Randolph G. Flood
William J. Kerr	L. Henry Garland
Alson R. Kilgore	Alexander S. Keenan
Robert R. Newell	Robert C. Martin
George Warren Pierce	Stanley H. Mentzer
Langley Porter	Lewis Michelson
George K. Rhodes	Millard R. Ottinger
Frederick H. Rodenbaugh	Kaspar Pischel
Edward B. Towne	H. A. L. Ryfkogel
John Homer Woolsey	I. Walton Thorne
Rodney A. Yoell	William C. Voorsanger
San Joaquin County (2)	
J. W. Barnes	C. A. Broadbuss
Dewey R. Powell	R. T. McGurk
San Luis Obispo County (1)	
C. J. Teass	John W. Nielsen
San Mateo County (1)	
H. Ray Hartzell	
Santa Barbara County (2)	
Hugh F. Freidell	Rexwald Brown
Richard D. Evans	Harry E. Henderson
Santa Clara County (3)	
George L. Barry	Dell Lundquist
Cecil M. Burchfiel	C. S. Sullivan
Enos Paul Cook	E. M. Miller
Santa Cruz County (1)	
P. T. Phillips	Jesse C. Farmer
Shasta County (1)	
Ferdinand Stabel	F. H. Olberg
Siskiyou County (1)	
G. H. Runckel	Joseph Langer
Solano County (1)	
John W. Green	J. Edward Hughes
Sonoma County (1)	
A. M. Bowles	J. W. Seawell
Stanislaus County (1)	
J. A. Porter	R. S. Hiatt
Tehama County (1)	
F. H. Bly	F. L. Doane
Tulare County (1)	
H. G. Campbell	S. S. Ginsburg
Tuolumne County (1)	
G. C. Wrigley	H. D. Rose
Ventura County (1)	
W. S. Clark	Grundy C. Coffey
Yolo-Colusa-Glenn County (1)	
Charles F. Keith	O. C. Railsback
Yuba-Sutter County (1)	
P. B. Hoffman	N. E. Richardson

I—GENERAL MEETINGS

All General Meetings will be held in the Ballroom

FIRST GENERAL MEETING (Session)

Monday, May 2, 11 a. m.

1. *Invocation*—Dr. Leslie E. Learned, Rector of All Saints Episcopal Church, Pasadena, California.
2. *Introduction of E. O. Nay*, Chairman Board of Directors, City of Pasadena, by F. C. E. Mattison, M. D., General Chairman.
3. *Address of Welcome*—E. O. Nay.
4. *Address of Welcome*—William R. Molony, M. D., President of Los Angeles County Medical Association.
5. *President's Address*—Junius B. Harris, M. D.
6. *What the Medical Profession Can Do to Diminish the Mortality from Cancer*—R. B. Greenough, M. D.
7. *Bacteriophage in the Treatment of Osteomyelitis and Other Wounds*—Fred H. Albee, M. D.

SECOND GENERAL MEETING

Tuesday, May 3, 11:30 a. m.

Medical Economics—Under the direction of the California Medical Association, Committee on Medical Economics, John H. Graves, M. D., Chairman.

1. *The Private Practitioner and the Health Department*—Carl R. Howson, M. D.
2. *A Consideration of the Inside Workings of the Medical Association*—Daniel Crosby, M. D.
3. *Some of the Legal Aspects of Health Insurance Groups and Companies*—William Duffield, M. D.

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THIRD GENERAL MEETING

Wednesday, May 4, 11:30 a. m.

1. *Can the Patient with Heart Disease Stand an Operation*—S. A. Levine, M. D.
2. *The Psychogenic Factor in Physical Disease*—Karl Menninger, M. D.

II—HOUSE OF DELEGATES MEETINGS

29th ANNUAL SESSION

Administration Room, The Huntington

PROGRAM OF FIRST MEETING

Monday, May 2, 8 p. m.

Members of the California Medical Association who attend are requested not to take seats reserved for delegates.

Order of Business

1. Call to order.
2. Announcement by the Speaker on personnel of:
 - (a) Credentials Committee: George G. Reinle, Oakland, Chairman; Harry E. Zaiser, Orange; Ferdinand Stabel, Shasta.
 - (b) Reference Committee on Reports of Officers and of Standing Committees: P. T. Phillips, Santa Cruz, Chairman; Alson R. Kilgore, San Francisco; Carl R. Howson, Los Angeles.
 - (c) Reference Committee on Resolutions and on New and Miscellaneous Business.
3. Report of Credentials Committee.
4. Roll Call.
5. Report of President Junius B. Harris.
6. Report of the Council, Oliver D. Hamlin, Chairman.
7. Report of the Auditing Committee, T. Henshaw Kelly, Chairman.
8. Report of the Secretary-Treasurer, Emma W. Pope.
9. Report of the Editor, George H. Kress.
10. Report of the General Counsel, Hartley F. Peart.
11. Report of the Director of Public Relations, Walter M. Dickie.
12. Report of the Board of Trustees of the California Medical Association; O. D. Hamlin, President.
13. Unfinished business.
14. New business. (Introduction of resolutions.)
15. Reading and adoption of minutes.
16. Adjournment.

PROGRAM OF SECOND MEETING

Wednesday, May 4, 8 p. m.

Members of the California Medical Association who attend are requested not to take seats reserved for delegates.

Order of Business

1. Call to order.
2. Roll Call.
3. Announcement of meeting place of 1933 annual session.
4. Election of:
 - (a) President-elect.
 - (b) Speaker of House of Delegates.
 - (c) Vice-speaker of House of Delegates.
 - (d) Councilors.
 - First District—Incumbent, Mott H. Arnold, San Diego (1932).
 - Fourth District—Incumbent, Fred R. DeLappe, Modesto (1932).
 - Seventh District—Incumbent, Oliver D. Hamlin, Oakland (1932).
 - Councilors-at-Large—Incumbent: George G. Hunter, Los Angeles (1932). Joseph Catton, San Francisco (1932).
 - (e) Delegates and Alternates to American Medical Association for sessions 1933-1934. Incumbents of sessions 1931-1932 are:

Delegates	Alternates
Irving S. Ingber San Francisco	Charles A. Dukes Oakland
Percy T. Magan Los Angeles	Charles D. Lockwood Pasadena
Junius B. Harris Sacramento	John Hunt Shepard San Jose
William R. Molony, Sr. Los Angeles	John C. Ruddock Los Angeles
5. Report of Reference Committee on Reports of Officers and Standing Committees.
6. Report of the Reference Committee on Resolutions and on New and Miscellaneous Business.
7. Presentation of President.
8. Presentation of President-elect.
9. Reading and adoption of minutes.
10. Adjournment.

III—OFFICIAL MEETINGS

Hours and Places Where Held

MEETINGS

General Meetings

All General meetings will be held in the Ball Room.
Monday, 10:30 to 12:30 p. m.—Presidential address. Addresses by Invited Guest Speakers.
Tuesday, 11:30 a.m.-1 p.m.—Medical Economics Meeting.
Wednesday, 11:30 a.m.-1 p.m.—Addresses by Invited Guest Speakers.

Meetings of the House of Delegates

Monday and Wednesday evenings, May 2 and 4, at 8 p. m. in Administration Room, Hotel Huntington.

Council Meetings

All meetings of the Council will be held in Room 18.
First meeting, Sunday, May 1, 8 p. m.
Second meeting, Monday, May 2, 2:30 p. m.
Third meeting, Tuesday, May 3, 9:00 a. m.
Fourth meeting, Wednesday, May 4, 9:00 a. m.
Fifth meeting, Thursday, May 5, 9:00 a. m.

Organization Meetings of All Standing Committees

Members of all Standing Committees are urged to contact one another and to meet and organize for the coming year by the election of a chairman and secretary, and appointment of advisory members—and to discuss plans for the next year's work.

General Outline of Various Meetings and Entertainment

Sunday May 1	8 p. m.	Council
Monday May 2	10:30-1 p. m. 1 p. m. 2:30-5 p. m. 8 p. m.	First General Meeting (Ball Room). Cancer Commission Luncheon (Main Dining Room). Section Meetings and Council First House of Delegates Meeting (Administrative Room). Community Players in Ball Room. X-ray and Laboratory Apparatus Demonstration, California Institute of Technology
Tuesday May 3	8:30-11:30 a. m. 11:30-1 p. m. 1 p. m. 2-5 p. m. 7:30 p. m.	Section Meetings and Council at 9 a. m. General Meeting (Ball Room). Luncheon for County Society Officers, Members of Standing Committees and Officers of the C. M. A. (Crystal Room). Automobile Rides and Visit to Huntington Library. X-ray and Labo- ratory Apparatus Demonstration, California Institute of Technol- ogy. Golf Tournament (Official C. M. A.). Dinner Dance and Ball—In honor of the President (Main Dining Room and Ball Room).
Wednesday May 4	8:30-11:30 a. m. 11:30-1 p. m. 1 p. m. 8 p. m.	Section Meetings and Council at 9 a. m. General Meeting (Ball Room). Al Fresco Luncheon at Swimming Pool (Aquatic Sports). Visit to Huntington Library. Golf Second House of Delegates Meeting (Administration Room). Theater Party at Community Playhouse. X-ray and Laboratory Ap- paratus Demonstration, California Institute of Technology.
Thursday May 5	8:30-11:30 a. m.	Section Meetings and Council at 9 a. m.

IV—SCIENTIFIC EXHIBITS

1. BRAIN EXHIBIT AND PERIPHERAL BRAIN ARTERIES

Frederick Proescher, M. D.
Agnew State Hospital, Agnew

Plastic Formations of the Brain—A series of macro-
scopical brain specimens will be exhibited demon-
strating the most important structures of the brain.
The specimens are prepared according to the method
of the late Professor Edvard Clason of the University
of Uppsala. This so-called "Abfaserungsmethode,"
while not new, is seldom used but is a very conven-
ient and simple method to demonstrate the various
brain structures. It is the only method which gives a
proper understanding and conception of the form, size
and topography of the brain stem and the associated
fascicles. The specimens are of great value as com-
parative objects in the study of serial sections of the
brain.

Topography of the Peripheral Brain Arteries—A sys-
tematic study of the topography of the brain arteries
was first undertaken by Hindze, who described a
method whereby it was possible to dissect the arteries
of the brain without destroying the brain structures.
The arteries with the pia-arachnoidea were removed
in toto and the vessels carefully stripped of the pia-
arachnoidea while suspended in water, then stained in
hematoxylin, stretched out on glass plates, dried, and
then varnished. This method makes possible a com-
parative study of the brain circulation and demon-

strates that the distribution of the arteries follows a
definite plan, according to the cytoarchitectonic struc-
ture of the brain. The brain arteries of thirty brains,
comprising mental cases mainly, will be on exhibition.

Pathological Brain Specimens—There will be an ex-
hibition of specimens of brain tumors, hydrocephalus,
microencephaly, malformations of the brain, brain
hemorrhages, mongolism, etc.

*Economo's Method for the Investigation of the Cyto-
architectonic Structure of the Brain Cortex*—Models,
charts and micro-photographs demonstrating the
method will be shown.

Clinical Observations in Epilepsy—Charts demon-
strating observations, extending over a period of
three years, made on the weight of epileptic patients;
the effect of inorganic bromides on the convulsive
state and the chemical changes in the blood during
bromide treatment.

*Clinical and Biochemical Investigations in Morphin
Addiction*—Charts and tables on the physical consti-
tution of morphin addicts, blood changes, and clinical
observations will be exhibited.

2. EXHIBIT OF BILIARY CALCULI

A demonstration of 350 mounted and polished gall-
stones, representing practically every known type of
biliary calculus. By Stanley H. Mentzer, M. D., 450
Sutter Street, San Francisco. From the Surgical Ser-
vice, University of California Medical School.

Diagram of Section Meetings

(For diagram of location of meeting rooms, see page 280.)

Date	Ball Room	Administration Room	Crystal Room	Sitting Rooms of Cottages			
				Cottage 1	Cottage 2	Cottage 3	Cottage 4
Monday May 2 2-5 p. m.	Medicine	Surgery	Pediatrics	Industrial Medicine	Neuro- psychiatry	Eye, Ear, Nose and Throat	Radiology
Tuesday May 3 8:30-11:30 a. m.	Medicine (Joint meet- ing with Pathology) (Dr. Levine)	Surgery	Pediatrics	Industrial Medicine	Neuro- psychiatry (Dr. Menninger)	Eye, Ear, Nose and Throat	Anesthesi- ology
Wednesday May 4 8:30-11:30 a. m.	Medicine (Joint meet- ing with Radiology)	Surgery (Dr. Albee)	Obstetrics and Gynecology	Pathology (Dr. Greenough)	Dermatology	Urology	Anesthesi- ology
Thursday May 5 8:30-11:30 a. m.	Medicine	Surgery	Obstetrics and Gynecology	Pathology	Dermatology	Urology	Radiology

3. DERMATOLOGIC EXHIBIT

Contact Dermatitis—Clinical aspects and Diagnosis by means of the Patch Test. Photographs of cases of contact dermatitis due to such substances as plants, drugs, industrial irritants, cosmetics, etc., together with photographs of Patch Tests, will be exhibited. A demonstrator will be in attendance to explain the technique of applying the Patch Test. By Samuel Ayres, Jr., M. D., and Nelson P. Anderson, M. D., Los Angeles. Photographs of diseases of tongue, mouth, and skin. By H. C. L. Lindsay, M. D., Pasadena.

4. RADIOLOGIC EXHIBIT

Four large viewing cabinets showing films of peptic ulcer, nontuberculous and tuberculous lesions of the chest will be on exhibit.

5. PLASTIC SURGERY EXHIBIT

Exhibit of fifty photographs showing facial or bodily deformity and result after correction, with condensed history and technique procedure. By H. O. Barnes, M. D., Los Angeles.

CANCER PROGRAM

Following is a schedule of cancer features during the Convention, planned for the general sessions, section meetings and events under the auspices of the California Medical Association Cancer Commission.

Sunday, May 1

Microscopic Pathology Conference (under auspices of the Cancer Commission), White Memorial Hospital, Boyle and Michigan avenues, Los Angeles.

PROGRAM

- 10:00–10:30 a.m.—Cyril B. Courville, Gliomata (classification).
 10:30–12:00 noon—Newton Evans, Warren Harding (by invitation), Gynecological Cases
 12:00–1:00 p.m.—Charles L. Connor, Bone Tumor Cases.
 2:00–2:10 p.m.—D. S. Pulford, Grading of Epithelioma (lantern slide demonstration).
 2:10–2:55 p.m.—Zera E. Bolin, Epithelial Tumor Cases.
 2:55–3:45 p.m.—A. R. Kilgore, Breast Cases.
 3:45–4:30 p.m.—Roy W. Hammack, Lymph-gland Cases.

4:30–5:00 p.m.—Thomas E. Gibson, Genito-Urinary Cases.

Number attending will be necessarily limited by the capacity of the laboratory (40). Members desiring to attend will need to reserve places and reservations will be made in order of receipt of application by the Cancer Commission, preference being given to hospital pathologists.

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Monday, May 2

Address by Robert B. Greenough of Boston—Huntington Hotel Ball Room, First General Session. "What the Medical Profession Can Do to Diminish Mortality from Cancer."

1 1 1

Cancer Commission Luncheon—Large Dining Room, accommodations for 200.

For members of clinical and general Cancer Commission committees and for members of the California Medical Association interested in cancer.

PROGRAM

- Survey of a Year's Work*—C. A. Dukes, chairman.
Report of Gynecological Tumors Committee—Edward N. Ewer.
Review of Activity in Southern California—Orville N. Meland.
Plans for Work of Next Year—A. R. Kilgore.

✽

Tuesday, May 3

Papers on Cancer—Second meeting of General Surgical Section, Administration Room, 8:30 to 11:30 a.m.

✽

Wednesday, May 4

Round Table Conference on Cancer—Pathology and Bacteriology Section, Cottage No. 1, 8:30 to 11:30 a.m. Dr. R. B. Greenough will be present as guest of the Section.

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Thursday, May 5

Therapeutics of Malignancy—Two papers at the third meeting of the Radiology Section, Cottage No. 4. Dr. R. B. Greenough will be a guest of the Section.

Information Concerning Street Cars, Buses and Railroads

(For cut of Los Angeles boulevards leading to Hotel Huntington, see next page.)

I.

(a) The "Oak Knoll" red street car passes the Huntington door.

(b) The "Oak Knoll" street car which passes the Hotel Huntington doors, when it reaches Los Angeles, takes you down Main Street from First to Sixth, then into the Sixth Street Pacific Electric Depot, which is located at Sixth and Main Streets.

(c) Motor transit busses come into Pasadena at Los Robles and Green Streets. Walk one block to Colorado and take Oak Knoll street car for hotel. Bus from Glendale to Pasadena leaves one block above Southern Pacific Station.

(d) Courtesy automobiles for sightseeing will be located at hotel entrance and will be marked "Courtesy Car, California Medical Association." Inquire at information desk regarding the use of these courtesy cars.

(e) Starting point for special trips will be the hotel entrance. Each automobile will be marked "Courtesy Car." All starting trips will be announced in programs or on bulletin boards. The approximate hour of return will be just preceding the next scheduled event on the program.

II.

(a) The *Santa Fe Railroad* has the only station located in Pasadena. However, those coming from eastern points via the Union Pacific can detrain at East Los Angeles and the Union Pacific bus will bring them up to the hotel. Those arriving over the Southern Pacific from eastern points will detrain at Alhambra and can take the Southern Pacific bus, which passes within two blocks of the hotel, or they can ride to the Pasadena ticket office and take the Oak Knoll street car back to the hotel.

The Los Angeles depot of the *Southern Pacific Railroad* is located at Fifth Street and Central Avenue. To reach Pasadena via red Pacific Electric street cars take red car in front of Southern Pacific depot and get off at Pacific Electric depot at Sixth and Main Streets in Los Angeles, there taking the "Oak Knoll" red street car line to Pasadena and getting off at the Huntington Hotel station.

The *Santa Fe Railroad* depot in Los Angeles is located at First Street and Central Avenue. Take any yellow car going west on First Street to Main Street. There take a red car marked Pasadena-Oak Knoll and get off at the Hotel Huntington station.

The *Union Pacific Railroad* has the same depot as the Southern Pacific; similar procedure to arrive at Huntington Hotel by Pacific Electric red "Oak Knoll" cars.

Trains arrive as follows in Los Angeles:

Daylight Limited arrives at Los Angeles at 8:30 p.m. Sunset Limited arrives at Los Angeles at 8:15 a.m. Oakland Lark arrives at Los Angeles at 9:15 a.m. Lark arrives at Los Angeles at 9:15 a.m. San Joaquin arrives at Los Angeles at 10:50 p.m. Tehachapi arrives at Los Angeles at 9:35 a.m. Owl arrives at Los Angeles at 8:45 a.m.

(b) The *Pacific Electric* cars marked "Pasadena via Oak Knoll" leave the P. E. depot at Sixth and Main Streets every twenty minutes for Pasadena. Hotel Huntington has a station on this car line. Get off at Hotel Huntington station.

III.

(a) The Huntington Hotel is located at Oak Knoll Avenue and Wentworth, Pasadena.

(b) The best routes by automobile from Los Angeles to Hotel Huntington are: Route 1—From Macy Street to Mission Road to Huntington Drive to Oak Knoll Avenue (turn left). Route 2—Go north on Broadway, Pasadena Avenue to Mission Road to Huntington Hotel.

(c) Best route from Hollywood—Vermont Street or Western Avenue to Los Feliz to Brand to Colorado Boulevard to Oak Knoll Avenue in Pasadena. Oak Knoll intersects Colorado Avenue at the 800 block east. Then turn right to Huntington Hotel.

(d) From Glendale take Colorado Avenue, which runs through Pasadena, then turn right on Oak Knoll Avenue. This is called Highway No. 66.

(e) Hotel Huntington telephone number: Terrace 6121.

(f) Hotel Huntington mailing address: Huntington Hotel, Pasadena, California.

V—ENTERTAINMENT PROGRAM—ANNUAL SESSION

Sunday Afternoon, May 1.—Golf. Visit to Huntington Art Galleries.

Monday, May 2.—Auto rides.

Tuesday, May 3.—President's dinner and dance; Huntington Art Gallery open at 1:30 p. m.

Wednesday, May 4.—Al fresco luncheon at pool of Huntington Hotel (tickets for those who care to attend); Huntington Art Gallery open at 1:30 p. m.

Tickets for entrance to Huntington Art Gallery must be reserved. Only limited number can attend.

GOLF ANNOUNCEMENT

Any member or his guest desiring a game of golf on any morning or afternoon of the Session will be furnished transportation by a Southern California Medical Golf Association official car from its headquarters in the Huntington Hotel at Pasadena to the golf clubs available for this purpose.

The Southern California Medical Golf Association will have a representative stationed at headquarters in the Huntington Hotel to give out any information desired regarding golf.

On Tuesday afternoon, May 3, the official California Medical Association Tournament will be held. The trophies won in this Tournament will be awarded at the President's reception and ball.

RESERVATIONS

Arrangements Committee desk for:

Al fresco luncheon on Wednesday afternoon; President's dinner Tuesday night; Huntington Art Galleries.

Woman's Auxiliary desk for:

Luncheon in honor of Mrs. Sargent on Tuesday.

Tea in honor of Mrs. Harris on Tuesday.

Auto rides on Monday afternoon.

Golf Committee desk for:

Entry in golf tournament.

DEMONSTRATION OF THE MILLION VOLT LABORATORY AND X-RAY APPARATUS AT CALIFORNIA INSTITUTE OF TECHNOLOGY

Under the Direction of

Dr. C. C. Lauritsen and Dr. J. W. Du Mond

Monday, May 2, 8 p. m.

Tuesday, May 3, 2 p. m.

Wednesday, May 4, 8 p. m.

1. Demonstration of high tension phenomena in high tension laboratory.
 2. Viewing of high voltage x-ray tube in high tension laboratory now being used in treatment of cancer patients.
 3. Viewing the new tube, transformer and the general set-up of the Kellogg Laboratory.
 4. Demonstration of stereoscopic fluoroscope by Doctor Du Mond. This will be temporarily set up for demonstration to small groups only. It will be in the new Kellogg Laboratory.
- Directions: Drive to 1201 East California Street, Pasadena, directly opposite Tournament Park Entrance. Enter first building on right of court.



Chart 1.—Showing location of Hotel Huntington, Pasadena, and arterial roadways leading to same from Los Angeles.

VI—SECTION MEETINGS

Rules Regarding Papers and Discussions at the Annual State Session:

Upon recommendation of the Executive Committee, the following rules regarding papers have been adopted by the Council:

1. All papers read before a section of an annual session are the property of California and Western Medicine.
2. The maximum time that may be consumed by any paper is fifteen minutes, provided that not to exceed ten minutes' latitude may be allowed invited guests at the discretion of the presiding chairman.
3. The maximum time permitted any individual to discuss a paper is four minutes. This also applies to the author in closing his discussion. No speaker may discuss more than once any one subject. The presiding officer of each section is expected to enforce these rules.
4. A copy of each and every paper presented at the state meeting must be in the hands of the chairman or secretary of the section or in the hands of the general secretary before the paper is presented.
5. Typewriting should be double spaced and original copies. Single space on carbon copies are not acceptable.
6. All papers read at an annual session of the California Medical Association automatically become the property of the Association (By-Laws, Chapter VI, Section 4). The Committee on Publications of the official publication, California and Western Medicine, decides whether or not the paper submitted is of such nature as to be published in full in California and Western Medicine or in abstract form. (In case the latter procedure is followed, the expense of setting up the type for reprints may be borne by the Association.) It is also the ruling that when any section has a larger number of papers on its program than can be covered in a two-day session, that not more than the average number of papers from such section shall be printed, unless for special reasons. Manuscripts not accepted for California and Western Medicine will be returned to the authors, for submission to other medical journals, if so desired.
7. Articles are accepted for place on the program on condition that they are also contributed solely to California and Western Medicine. Authors desiring to publish their papers elsewhere than in the journal must make written request to the state secretary. Papers submitted at meetings of this Association must not have been previously submitted or printed elsewhere.
8. No paper will be accepted by the General Program Committee nor by Section Program Committees unless accompanied by a synopsis of not to exceed fifty words.
9. Papers shall not be "read by title." Papers should be original typewritten copies, double spaced, and should be handed to the section secretary after having been read.
10. No member may present more than one paper at any annual session, provided that a member may be a collaborator on more than one paper, if these papers are presented by different authors.
11. Failure on the part of an author to present a paper precludes acceptance of future papers from such author for a period of two years, unless the author explains to the satisfaction of the Executive Committee his inability to fulfill his obligation.

Business Meetings of Sections

Time of business meetings and elections of officers of sections will be scheduled on section blackboards by section secretaries, and through preliminary announcements by section chairmen.

Section Index to This Program

(Sections are arranged alphabetically)

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I

ANESTHESIOLOGY SECTION

MARY E. BOTSFORD, M. D., *Chairman*
807 Francisco Street, San Francisco

CAROLINE B. PALMER, M. D., *Secretary*
2557 Clay Street, San Francisco

First Meeting—Cottage No. 4
Tuesday, May 3, 8:30 to 11:30 a. m.

1. *Chairman's Address—Recent Progress in the Development of Anesthesiology as a Medical Specialty*—Mary E. Botsford, M. D., San Francisco.
2. *Divinyl Oxide Anesthesia*—Chauncey D. Leake, Ph. D., University of California Hospital, San Francisco.

Divinyl oxide, chemically related to ether and ethylene, is a liquid boiling at 28° C., and is inflammable like ether. It is a more rapid and efficient anesthetic than ether, and causes less deleterious physiological effects. It is less irritating than ether, but causes a better relaxation. Clinical trial has thus far justified such expectations of its value as are based on laboratory studies.

3. *Nitrous Oxide Anesthesia—Six Years' Added Experience*—Philip K. Gilman, M. D., 2000 Van Ness Avenue, San Francisco.

Coöperation of anesthetist and surgeon necessary in any anesthesia. Increasing use of nitrous oxide during past six years to practical exclusion of all other anesthetics. Preliminary medication. Advantages and disadvantages of nitrous oxide compared to ether. Addition of local anesthesia. Absence of shock and prompt recovery of consciousness. Lessened vomiting. Infrequency of postoperative respiratory complications. Absence of dread of a second anesthesia. Citation of cases. Conclusions.

4. *The Anesthetist in Medical Progress*—John Miller Wilson, M. D., 605 Professional Building, Pasadena.

The anesthetist compared with other specialists in modern medicine and surgery. Some observations in thirty years as an anesthetist. The anesthetist's position on the surgical team. The responsibility of the anesthetist during the operation—first to the patient, second to the surgeon. The anesthetist and the hospital.

5. *Spinal Anesthesia*—W. D. Wightman, M. D., 604 Medical Office Building, 1136 West Sixth Street, Los Angeles, and Shuler F. Fagan, M. D., 1210 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.

Brief history of spinal anesthesia. Review of literature on spinal anesthesia casualties. Indications and contra-indications in spinal anesthesia, together with the margin of safety. Technique of controllable spinal anesthetic with pre-operative and postoperative care as practiced by us in our spinal work. A one-reel colored picture of our complete technique.



Second Meeting—Cottage No. 4

Wednesday, May 4, 8:30 to 11:30 a. m.

1. *Choice of Anesthesia in Prostatectomy*—Lloyd R. Reynolds, M. D., Department of Urology, Stanford University Medical School, San Francisco.

Importance of selecting type of anesthesia for each case. Requirements of an anesthetic to be perfect. Facts to be considered in selecting type of anesthesia. Advantages and disadvantages of various types of anesthesia in popular use. (1) Local. (2) Inhalation anesthesia. (a) Ether. (b) Nitrous oxide. (c) Ethylene. (3) Sacral-parasacral. (4) Spinal—Important points in the in the technique of giving a spinal anesthetic.

2. *Further Reports on the Use of Tribromethanol (Avertin)*—Dorothy A. Wood, M. D., 1390 Seventh Avenue, San Francisco.

Discussion of the use of tribromethanol as a preoperative narcotic. Discussion of tribromethanol as an anesthetic; indications for its usage; preoperative preparation of the patient; regulation of the dosage; technique of administration; management of the anesthesia; results obtained; and postoperative handling and recovery of the patient.

3. *The Present Status of Obstetrical Anesthesia*—John Robert Burrows, M. D., 2300 Webster Street, San Francisco.

Consideration of various methods and agents in use at present and in past to produce analgesia and anesthesia in obstetrics. Requirements of an anesthetic agent used in obstetrics. Review of various agents, including inhalation anesthetics, barbiturates, sacral block, and spinal. Their effect on mother and child and their efficiency. Brief review of cases at Stanford Hospital from 1917 to the present. Importance of trained anesthetists in obstetrics. Resuscitation of newborn.

4. *Variations of Pulse and Blood Pressure on Postural Change in Health and Disease*—David G. Ghrist, M. D., 317 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.

Reactions of pulse and blood pressure to postural change are presented in normal, hypotensive, hypertensive, arteriosclerotic, Addison's disease, and other groups of subjects. Physiology of pathologic reactions and their relation to surgical shock is discussed. Indications for use of ephedrin in pathologic subjects.

5. *The Purity of Nitrous Oxide—With Especial Reference to Nitrogen Content*—Albert L. Chaney, Ph. D., The Los Angeles County General Hospital, Los Angeles. (By invitation.)

Cylinders of nitrous oxide have been found to contain considerable quantities of nitrogen gas as the principal impurity. Methods of testing the gas and the effect of this impurity on the anesthetic quality of the gas.



II

DERMATOLOGY AND SYPHILOLOGY SECTION

JAMES C. E. KING, M. D., *Chairman*
314 Medico-Dental Building
233 A Street, San Diego

STUART C. WAY, M. D., *Vice-Chairman*
320 Medico-Dental Building
490 Post Street, San Francisco

C. RAY LOUNSBERRY, M. D., *Secretary*
1111 Medico-Dental Building
233 A Street, San Diego

First Meeting—Cottage No. 2

Wednesday, May 4, 8:30 to 11:30 a. m.

1. *Chairman's Address*—James C. E. King, M. D., San Diego.
2. *Present Day Concepts of Eczema*—Ernest Dwight Chipman, M. D., Union Square Building, 350 Post Street, San Francisco.

Discussion of present day views concerning nature of eczema, with special reference to such possible etiologic factors as allergy, faulty metabolism, nervous disorder, endocrine dysfunction, etc. While there are many diverse views concerning eczema, they are perhaps more apparent than real. Of particular interest is the question whether eczema is or is not something more than a dermatitis of unknown origin.

3. *Specific Desensitization in Exogenous Eczema (Silk)*—Philip K. Allen, M. D., 314 Medico-Dental Building, 233 A Street, San Diego.

General consideration of exogenous eczema. Report of case of eczema of six years' duration in which an intense cuti-reaction to silk was only etiologic factor discovered. The first desensitizing dose resulted in antipruritic shock followed by marked clinical improvement lasting two days. Desensitization attempted with injections at four to five-day intervals resulted in rapid clinical improvement until a "tolerance level" was reached. Subsequent desensitization with injections at two-day intervals.

4. *Compensible Industrial Dermatoses (Ergodermatoses)*—Moses Scholtz, M. D., 715 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.

Theoretical concepts of occupational allergy. Definition of Ergodermatoses. Types of ergodermatoses: simple irritational; infectious—bacterial, mycotic, pyogenic; ergodermatoses with systemic background. Clinical diagnosis of ergodermatoses. Patch test. Evaluation of compensability. Conclusions.

5. *Ainhum*—George F. Koetter, M. D., 812 Medical Office Building, 1136 West Sixth Street, Los Angeles.

A complete study, including case histories, photographs, lantern slides, pathogenesis, and bibliography of Ainhum in two patients observed on the dermatological service of the Veterans' Hospital, Sawtelle, California.



Second Meeting—Cottage No. 2

Thursday, May 5, 8:30 to 11:30 a. m.

1. *The Dermatologist as an Internist*—William H. Barrow, M. D., 1401 Medico-Dental Building, 233 A Street, San Diego.

Relationship of internal medicine and dermatology. Discussion of method and interest held in common by the dermatologist and internist, and certain diseases that fall within the realm of both specialties. A brief résumé of medical conditions and of dermatological conditions where a specialist in other conditions should be consulted. Plea for closer cooperation in investigation of certain problems and clinical disorders, such as calcium disturbances, glandular dysfunctions, and allergic conditions.

2. *Rare Fungus Infection*—Howard Morrow, M. D., 809 Fitzhugh Building, 384 Post Street, San Francisco.

A lantern slide demonstration of fungus infections of the skin, mucous membranes, and deeper structures. Differential diagnosis. Cultural characteristics. Therapy.

3. *Syphilitic Pneumonia*—Harvey T. Olsan, M. D., Los Angeles County General Hospital, 1100 N. Mission Road, Los Angeles. (By invitation.)

A review of syphilitic pneumonia as an associated lesion in early syphilis. Case report of labor pneumonia in which spirochaetae pallidae were demonstrated in the sputum. Photomicrographs of spirochaetae pallidae and roentgenograms to show progress under treatment for syphilis. The relationship of syphilitic pneumonia to other early lesions of syphilis.

4. *Bowen's Precancerous Dermatitis—Evidence of Arsenic as a Causative Agent*—Nelson P. Anderson, M. D., Westlake Professional Building, 2007 Wilshire Boulevard, Los Angeles.

History of ingestion of Fowler's Solution many years ago. Arsenic found in urine. Sections of Bowen's disease stained for arsenic by Osborne's Micro. Chemical method. Mention of other cases in literature where there is a history of arsenic ingestion.

5. *Research in Dermatology*—Charles R. Caskey, M. D., 715 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.

Many dermatoses are of unknown or doubtful etiology and in need of more efficient therapy. Etiology should form basis for classification and direct therapy, or indicate where new remedies which open new fields may be found. Fundamental principles of art and science of examination, diagnosis, and treatment necessary.



III

EYE, EAR, NOSE, AND THROAT SECTION

FREDERICK C. CORDES, M. D., *Chairman*
817 Fitzhugh Building
384 Post Street, San Francisco

J. ROY JONES, M. D., *Vice-Chairman*
2138 Third Avenue, Sacramento

ISAAC H. JONES, M. D., *Secretary*
Wilshire Medical Building
1930 Wilshire Boulevard, Los Angeles

First Meeting—Cottage No. 3

Monday, May 2, 2 to 5 p. m.

1. *Acute Mastoiditis Caused by Hemolytic Staphylococcus Albus*—Henry J. Profant, M. D., 1421 State Street, Santa Barbara.

Acute suppurative otitis media; myringotomy, eight days later hemorrhage from middle ear controlled only by firm packing of gauze in canal; on removal of packing at any time within twenty-four hours profuse hemorrhage resumed. Erosion of jugular bulb feared. Two blood transfusions temporarily checked hemorrhage. Mastoidectomy and recovery.

Discussion opened by J. Frank Friesen, M. D., Los Angeles.

2. *The Treatment of Chronic Purulent Otitis Media with Iodine Powder (Sulzberger)*—Russell Fletcher, M. D., 1440 Medico-Dental Building, 490 Post Street, San Francisco.

Description of iodine powder and the technique for using it. Importance of correct technique. Consistently successful results in more than seventy-five consecutive cases. Report of few typical cases with varied conditions: such as long, previous but unsuccessful treatment; foul discharge; polyps and granulation tissue and previous radical mastoid operation.

Discussion opened by Harold A. Fletcher, M. D., San Francisco.

3. *Influence of Treatment on Deafness in Children*—Lawrence K. Gundrum, M. D., 1116 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.

In 1928 a preliminary report of deafness in children was presented in which auditory examinations were made before and after tonsillectomies and adenoidectomies. Improvement in the hearing acuity was shown in 87.5 per cent. Similar study of a later series of cases, aided by the follow-up work of the Parent-Teachers' Clinic of Los Angeles, presented.

Discussion opened by Frank H. Rodin, M. D., San Francisco.

4. *Chloroma Invading Sinuses and Orbit*—David R. Higbee, M. D., 3245 Fourth Street, San Diego.

A disease, which is probably a rare form of myelogenous Leukemia. It has a predilection for the flat bones, especially of the cranium and produces tumors of the orbit, frequently of greenish color, which cause exophthalmos. Metastasis is generalized and the condition progresses to early fatality. Most of the cases reported have occurred in the male child.

Discussion by Joseph McCool, M. D., San Francisco, and Donald Woods, M. D., San Diego.

5. *The Use of a Periosteal Flap with Skin Graft in Radical Mastoid Surgery*—Edward F. Ziegelman, M. D., Room 2340, 450 Sutter Street, San Francisco.

The purpose of radical mastoid surgery is to remove inherent dangerous pathology. Until recent times the economic and social aspect has been ignored in this type of surgery. The periosteal flap takes into consideration this phase of radical mastoid surgery.

Discussion opened by Frederick H. Linthicum, M. D., Los Angeles.



Second Meeting—Cottage No. 3

Tuesday, May 3, 8:30 to 11:30 p. m.

1. *Some Practical Considerations in the Treatment of Corneal Ulcer*—Harold F. Whalman, M. D., 938 Roosevelt Building, 727 West Seventh Street, Los Angeles.

A consideration of the pathologic processes involved in the development and healing of corneal ulcers and the place of the various kinds of treatment. Antiseptics, chemical cauterization, heat cauterization, and, in particular, the thermophore of Shahan, iontophoresis, ultra violet light, nonspecific protein therapy, and surgical measures are described. Emphasis is placed on the more practical and applicable measures.

Discussion by William A. Boyce, M. D., Los Angeles, and Morie Weymann, M. D., Los Angeles.

2. *Juvenile Glaucoma and Myopia*—M. N. Beigelman, M. D., 203 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.

Two types of myopia in juvenile glaucoma. The anatomic structure (architectonic) of a normal corneosclera (the thickness in various parts, the arrangement of fibrous bundles and their elasticity) discussed from the standpoint of resistance to pressure. Attempt made to establish relative value of these physical factors and of hereditary malformations, in the origin of the two types of myopia associated with juvenile glaucoma.

Discussion by Charles M. Hosmer, M. D., San Diego, and George W. McCoy, M. D., Los Angeles.

3. *Yellow Oxide of Mercury Salve (Pagenstecher's Ointment)—Its Use and Abuse*—George N. Hosford, M. D., 1242 Medico-Dental Building, 490 Post Street, San Francisco.

History of the substance as used in ophthalmology. Report of its present uses in American and foreign clinics. Chemistry of HgO. Author's conception of its value and contraindications to its use.

Discussion opened by Clifford B. Walker, M. D., Los Angeles.

4. *Dense Secondary Cataract—Its Management*—Theodore C. Lyster, M. D., 1414 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.

About 25 per cent of capsulotomy extractions were followed by membranous cataracts—sufficiently opaque to require secondary operation. Most have clear pupils following one of various forms of discissions. Incidence now less, result of general use of capsulotomy forceps and anterior chamber irrigation. Two-stage intracapsular suggested for removal of dense secondary cataracts. (Slides showing method.)

Discussion opened by Otto Barkan, M. D., San Francisco.

5. *Retinal Detachment and Its Operative Cure*—Otto Barkan, M. D., 921 Medico-Dental Building, 490 Post Street, San Francisco.

Report of twelve cases operated for retinal detachment according to the method of Gonin. The tear in the retina can almost always be discovered if the pupil is sufficiently dilated. Some improvements in the present technique of local-

ization of the tear, as also in the method of operation, are suggested.

Discussion by A. C. Macleish, M. D., Los Angeles, and Walter Scott Franklin, M. D., Santa Barbara.

6. *Is Refraction a Medical or Nonmedical Problem*—Thomas W. Kelsey, M. D., 524 Physicians Building, Sacramento.

Mention is made of some of the inroads being made by quacks, cults, and others on the legitimate practice of medicine in general and ophthalmology in particular. As regards the examination of eyes for glasses, the methods available to both the medical and nonmedical refractionists are compared and conclusions drawn.

Discussion opened by Dewey R. Powell, M. D., Stockton.



IV

GENERAL MEDICINE SECTION

VERNE R. MASON, M. D., *Chairman*
838 Pacific Mutual Building
523 West Sixth Street, Los Angeles
R. MANNING CLARKE, M. D., *Secretary*
1219 Hollingsworth Building
606 South Hill Street, Los Angeles

First Meeting—Ballroom

Monday, May 2, 2 to 5 p. m.

1. *Chairman's Address*—Verne R. Mason, M. D., Los Angeles.
2. *Skin Tests in Allergy—A Recapitulation of Their Use in 7,000 Cases*—George Piness, M. D., and Hyman Miller, M. D., 608 Medical Office Building, 1136 West Sixth Street, Los Angeles.

A critical review of the history, development, and use of skin tests in allergy based on fifteen years' study and the results in about seven thousand cases. A consideration of the various methods of testing, their advantages and disadvantages, together with a discussion of the present trend with regard to elimination diets.

3. *The Response of Some of the Nonsurgical Complications of Diabetes to Diet Regulation*—James W. Sherrill, M. D., Scripps Metabolic Clinic, La Jolla.

Report of a series of diabetic patients under treatment over a period of years, with reference to regressive or progressive changes. Effect of various types of diet on elderly diabetic patients, with hypertensive and arteriosclerotic heart disease analyzed. Relation of general nutrition to cardiac function. Study of vascular condition in group of diabetic children.

4. *Ovarian and Anterior Pituitary Sex Hormones*—C. F. Fluhmann, M. D., Stanford University Medical School, San Francisco.

Definition; biological characteristics; biological tests, and distribution of ovarian and anterior pituitary sex hormones. Use of tests as an important diagnostic procedure and a method of studying various clinical conditions. Therapeutic results and possibilities.

5. *The Effects of Placental Extracts, the Thyroid Gland and Adrenal Cortex, on Ovarian Function*—H. Lissner, M. D., 208 Fitzhugh Building, 384 Post Street, San Francisco.

Mention will be made of the three extracts which can be derived from human placenta, their chemical and physiological characteristics, and the possible clinical usefulness of the two discovered by Collip in disturbances of menstruation, more especially dysmenorrhea and menorrhagia.

Reference will be made to menorrhagia complicating myxedema, and the less frequent amenorrhea of Grave's Disease. The several types

of the syndrome "Genito-Surrenale" (a) The congenital type (Pseudo-Hermaphroditism), (b) the juvenile type (Pubertas Precos), (c) the adult type (Virilismus with Heterosexual Hypertrichosis and Amenorrhea). (Lantern slides.)



Second Meeting—Ballroom

Joint Meeting of Pathology and Bacteriology and General Medicine Sections

Tuesday, May 3, 8:30 to 11:30 a. m.

1. *Anatomy and Physiology of Coronary Circulation*—William Dock, M. D., Stanford University Hospital, San Francisco.

A discussion of structure and variation in distribution of the coronary vessels; the development of collateral; the control of blood flow and the physiologic sequels of closure of the coronary arteries.

2. *Pathogenesis of Coronary Disease*—Newton Evans, M. D., Alfred C. Ambler, M. D., W. R. Dodson, M. D., 1100 North Mission Road, Los Angeles.

A study of coronary disease with special reference to etiology and pathogenesis of the lesions, based upon a review of 300 cases of coronary artery disease encountered in a series of 8,000 autopsies. One hundred and fifty of these cases present actual cardiac infarction.

3. *Pathology of Coronary Disease*—A. M. Moody, M. D., Saint Francis Hospital, San Francisco.

This report, limited to the pathology of coronary disease, is based largely on three years' observations in the pathological department of the coroner's office of San Francisco. It will include a lantern slide demonstration of the principle and some unusual coronary lesions found in these gross and microscopic studies of 307 hearts.

4. *Electrocardiographic Evidence of Coronary Disease*—William B. Faulkner, Jr., M. D., University of California Hospital, San Francisco, and Edward Robert W. Langley, M. D., Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.

A lantern slide demonstration of electrocardiographic tracings, showing coronary disease.

5. *Clinical Aspects of Coronary Disease*—Samuel A. Levine, M. D., 270 Commonwealth Avenue, Boston, Massachusetts. (By invitation.)



Third Meeting—Ballroom

Joint Meeting of Radiology and General Medicine Sections

Wednesday, May 4, 8:30 to 11:30 a. m.

1. *Clinical Aspects of Peptic Ulcer*—F. A. Speik, M. D., 800 Auditorium Building, 427 West Fifth Street, Los Angeles.

Evaluate the clinical aspects of peptic ulcer with x-ray diagnosis, particularly with regard to associated pathology in the portal lymphatic system.

2. *Roentgen Diagnosis of Peptic Ulcer*—Milton John Geyman, M. D., and Daniel M. Clark, M. D., 1520 Chapala Street, Santa Barbara.

The history and development of roentgen diagnosis are briefly reviewed. Their pathology, including incidence and etiology, are discussed. Recent refinements in diagnostic technique are described and evaluated.

3. *Clinical Aspects of Functional Disorders of the Colon*—Fred H. Kruse, M. D., 916 Fitzhugh Building, 384 Post Street, San Francisco.

Physiologic activities of the small bowel and colon and their normal functions. Disturbed function contrasted with actual disease. Use of term "colitis." Psychiatric make-up of the individual and influence of sympathetic nervous system with reference to irritable, spastic colon and mucus colitis. Etiology, diagnosis, and treatment; differentiation from organic colitis.

4. *X-ray Aspects of Functional Disorders of the Colon*—Howard E. Ruggles, M. D., 320 Fitzhugh Building, 384 Post Street, San Francisco.
Physiology of the colon still incomplete. The importance of nervous factors in the control of colonic activity. The rôle of water content. X-ray findings in the common disturbances.

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Fourth Meeting—Ballroom

Thursday, May 5, 8:30 to 11:30 a. m.

1. *Pharmacology of Bismuth Compounds in the Treatment of Syphilis*—P. J. Hanzlik, Ph. D., Stanford University School of Medicine, San Francisco.

History of treatment of syphilis with bismuth. More than eighty-five bismuth products; all effective in syphilis. Soluble types prompt in action; more complete in spreading, absorption, distribution, and excretion; more uniform in dosage and give less marked local reactions. Bismuth safer than mercury. In experimental syphilis, prophylactic efficiency greater than curative. Electronegative (anionic) bismuth dependably penetrates the brain and cerebrospinal fluid. Early treatment with bismuth rationally indicated for possible prevention of neurosyphilis or later manifestations of the disease.

2. *Dermatologic and Medical Aspects of the Bismuth Compounds Used in the Treatment of Syphilis*—Harry E. Alderson, M. D., Stanford University Medical School, San Francisco, and Samuel Ayres, Jr., M. D., 315 Westlake Professional Building, 2007 Wilshire Boulevard, Los Angeles.

Bismuth treatment of syphilis of proven value. Drug almost as effective as arsphenamin. Particularly valuable in cases where arsenic is contraindicated. Used successfully as a prophylactic in individuals exposed to syphilis. Unfortunately, some widely used bismuth preparations contain appreciable amounts of arsenic, the cause of occasional drug eruptions. At Stanford iodobismutol, a very useful soluble, pure bismuth preparation, is used.

3. *Neuropsychiatric Applications of the Bismuth Compounds Used in the Treatment of Syphilis*—Henry G. Mehrtens, M. D., Stanford University Medical School, San Francisco.

Is the penetration of bismuth compounds into the brain and spinal fluid a criterion of therapeutic worth in the treatment of neurosyphilitic conditions clinically?

4. *Consideration of the Wassermann-Fast Case*—M. W. Hollingsworth, M. D., 409 First National Bank Building, Santa Ana.

Should the Wassermann-fast case be treated at all? When may treatment be stopped? What is the danger of further progress of the disease, such as development of tabes, aortitis, etc., in the Wassermann-fast case, if treatment is discontinued?

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V

GENERAL SURGERY SECTION

CHARLES T. STURGEON, M. D., *Chairman*
1210 Wilshire Medical Building
1930 Wilshire Boulevard, Los Angeles
STANLEY H. MENTZER, M. D., *Secretary*
1009 Four Fifty Sutter Street
San Francisco

E. ERIC LARSON, M. D., *Assistant Secretary*
310 Wilshire Medical Building
1930 Wilshire Boulevard, Los Angeles

First Meeting—Administration Room

Monday, May 2, 2 to 5 p. m.

1. *Branchial and Thyroglossal Duct Cysts and Fistulas in Children*—Conrad J. Baumgartner, M. D., 939 Pacific Mutual Building, 523 West Sixth Street, Los Angeles.

These result from improper evolution of branchial apparatus. In children they are frequently improperly treated as abscesses or lymphadenitis. The clinical history and anatomical relations are discussed. Complete excision advised for branchial cysts. Excision by method of Sistrunk is recommended for thyroglossal duct cysts and fistulas.

Discussion by John Hunt Shepard, M. D., San Jose, and Leo J. Madsen, M. D., Santa Monica.

2. *New Method of Reconstruction of the Lip*—George Warren Pierce, M. D., 720 Medico-Dental Building, 490 Post Street, San Francisco.

Most methods for reconstruction of the lip detailed in the various surgeries give unsatisfactory results because flaps of full thickness are brought from the cheeks and joined in midline. This gives a short tense lip which does not possess normal function. These methods frequently result in damage to the nerve supply of the face muscles. The new method has the advantage of simplicity, freedom from interference of the nerve supply, normalcy of lip contour, and near approach to normal lip function. Motion pictures.

Discussion by William S. Kiskadden, M. D., Los Angeles, and Will L. Miles, M. D., Los Angeles.

3. *The Effects of Sympathetic Ganglionectomy in Cases of Postencephalitic Parkinsonian Syndrome*—Clarence E. Rees, M. D., 2001 Fourth Street, San Diego.

Review of opinions of the status of sympathetic control of muscle tonus. Short review of anatomy of sympathetic trunks; description of operation held in these cases. The effect of ganglionectomy in three cases. Illustrated by motion pictures.

Discussion by Howard Brown, M. D., San Francisco, and Steele Stewart, M. D., Los Angeles.

4. *The Bronchoscopic Treatment of Pulmonary Abscesses*—William B. Faulkner, Jr., M. D., University of California Hospital, San Francisco, and Edward C. Faulkner, M. D., Sacramento Hospital, Sacramento.

The therapy is based upon the establishment of adequate intrabronchial drainage, the obliteration of the abscess cavity, the checking of hemorrhage, and the prevention of the spread of the disease. The consideration of certain factors upon which the success or failure of the treatment depends. (Lantern slides.)

Discussion by Simon Jesberg, M. D., Los Angeles, and Francis M. Pottenger, M. D., Monrovia.

5. *Mediastinal Empyema*—H. E. Schiffbauer, M. D., 1005 Brockman Building, Los Angeles.

Infrequent occurrence in comparison with other forms of empyema of the chest. Usually secondary to acute respiratory infection, and treated by evacuation of pus by open drainage at dependent part of cavity. Maintenance of adequate drainage, until cavity is obliterated.

Discussion by W. H. Thearle, M. D., Los Angeles, and William B. Faulkner, M. D., San Francisco.

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Second Meeting—Administration Room

Tuesday, May 3, 8:30 to 11:30 a. m.

1. *Chairman's Address—The Preoperative Preparation of the Surgically Handicapped Patient*—Charles T. Sturgeon, M. D., Los Angeles.
2. *Precancerous Lesions of the Breast*—Alson R. Kilgore, M. D., 724 Medico-Dental Building, 490 Post Street, San Francisco.

Encapsulated adenomata and simple serous cysts, commonest benign breast lesions, are not precancerous. Their removal is required for diagnosis, not protection. A group of benign lesions is precancerous, however, and require

handling accordingly. (a) Paget's disease. A series of slides shows beginning skin lesion, extension down ducts, and deep involvement, requiring mastectomy; (b) Hyaline duct scar of lactation abscess, requiring excision; (c) papillomatous cyst, and (d) cystadenoma, requiring local excision. (Discussion of relation of chronic cystic mastitis to cancer.)

Discussion by Leroy B. Sherry, M. D., Pasadena, and Zera Bolin, M. D., San Francisco.

3. *The Causes and Effects of Degeneration and Necrosis of Malignant Tumors*—Rowland H. Harris, M. D., Roosevelt Building, 727 West Seventh Street, Los Angeles.

Degeneration and necrosis occur spontaneously in advanced malignant tumors of every variety and location. Certain degenerative changes in malignant growths are apparently beneficial. Necrosis of malignant tissues leads to ulceration, hemorrhage, infection, and other detrimental changes. Attempts to cure malignant disease by producing necrosis hold little prospect of success.

Discussion by Newton Evans, M. D., Los Angeles, and Rexwald Brown, M. D., Santa Barbara.

4. *Cancer of the Rectum—Its Surgical Management*—Dudley Smtih, M. D., 407 Medical Building, 909 Hyde Street, San Francisco.

Comments upon the various operations now in general use and presentation of the procedure which I have been using for some time, including some original improvements in the technique.

Discussion by Stanley H. Mentzer, M. D., San Francisco, and Thomas Burger, M. D., San Diego.

5. *The Relationship of the Blood Supply and Lymphatic Drainage of the Sigmoid and Rectum to Surgical Procedures*—Kenneth E. Smiley, M. D., 309 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.

The lymphatic drainage and the arterial blood supply of the rectum and sigmoid are described and illustrated. This anatomical knowledge is necessary for the proper application of surgical procedures.

Discussion by Maurice Kahn, M. D., Los Angeles, and Lemuel Adams, M. D., Oakland.



Third Meeting—Administration Room

Wednesday, May 4, 8:30 to 11:30 a. m.

1. *The Adenomatous Goiter—A Clinical Study*—William P. Kroger, M. D., 902 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.

A digest of the present status of adenomatous goiter. Comment on the geographic distribution in California. A discussion of Reinhof's etiological explanation. Clinical observations of the effect of iodine. Clinical end results of thyroidectomy upon toxic adenomas with hyperthyroidism and hypothyroidism. Relation of carcinoma to adenomatous goiter.

Discussion by Clarence Toland, M. D., Los Angeles, and H. H. Searls, M. D., San Francisco.

2. *Traumatic Osteomyelitis of the Cranial Vault with Particular Reference to Treatment*—Leo J. Adelstein, M. D., Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles, and Cyril B. Courville, M. D., 1100 Mission Road, Los Angeles.

Because of the peculiar relationships and structure of the bones forming the cranial vault, pyogenic infection pursues a course which differs from that occurring in the long bones. The pathogenesis of traumatic osteomyelitis of the flat bones of the skull is considered from a roent-

genologic standpoint. Special reference is made to its treatment which is essentially along conservative lines.

Discussion by Howard Fleming, M. D., San Francisco, and Carl W. Rand, M. D., Los Angeles.

3. *The Treatment of Fracture of the Hip*—Fred H. Albee, M. D., 57 West Fifty-seventh Street, New York. (By invitation.)

4. *Lesions of Muscles and Tendons Giving Joint Symptoms and Frequently Treated as Arthritis*—Edgar L. Gilcreest, M. D., 315 Fitzhugh Building, 384 Post Street, San Francisco.

General subject of ruptures of muscles and tendons, but more particularly those involving the lower extremities, which cause joint symptoms and which cause the patients to be treated months or years by conservative measures, when operative reconstructive measures will often secure a cure. This paper will deal with pain in the joints and will be illustrated by lantern slides.

Discussion by Thomas Stoddard, M. D., San Francisco, and Hugh Jones, M. D., Los Angeles.

5. *The Clinical Application of Certain Fundamental Principles in the Treatment of Fractures*—Frank J. Breslin, M. D., 807 Westlake Professional Building, 2007 Wilshire Boulevard, Los Angeles.

Good results depend upon an adequate study of each individual patient. A surgeon should develop a perfected technique in reduction, retention, countertraction, and skeletal traction. If it is apparent that these methods of treatment will not prove efficacious in a particular case, open operation should be considered and speedily performed.

Discussion by Ellis Jones, M. D., Los Angeles, and Frederick Linde, M. D., San Francisco.



Fourth Meeting—Administration Room

Thursday, May 5, 8:30 to 11:30 a. m.

1. *Gangrenous Appendicitis with Mesenteric Thrombosis*—Willard T. Conely, M. D., 918 Guaranty Building, 6331 Hollywood Boulevard, Hollywood.

Gangrenous appendicitis with mesenteric thrombosis, discussion of pathology and symptomatology, especially the mode of onset as a forewarning and clinical course; discussion of a few of the general manifestations of chronic appendicitis and some of the later aids to diagnosis.

Discussion by E. Eric Larson, M. D., Los Angeles, and George Rhodes, M. D., San Francisco.

2. *The Results of Operative Procedures on Stomach and Duodenum*—Leo P. Bell, M. D., Woodland Clinic, Woodland.

Illustrated, detailed discussion of the technique and mechanical factors in operative work on the stomach, the factors producing mortality, postoperative complications, ultimate results in regard to recurrence of ulcer, further medical care for gas, indigestion, or sour stomach, improper function of stomach, gain or loss of weight, relief of symptoms of ulcer, summarization of the proper type of postoperative routine extending over a period of years following operation.

3. *Perforated Peptic Ulcer*—George K. Rhodes, M. D., 430 Medico-Dental Building, 490 Post Street, San Francisco, and Donald C. Collins, M. D., Rochester, Minnesota.

A report of one hundred and seventy-five cases will represent a series of unselected consecutive cases treated in the San Francisco Emergency Hospital Service. The paper will be a review of the literature, clinical syndrome presented,

and operative procedure used by authors. The follow-up study of clinical results obtained with these particular patients will be given.

Discussion by Burns Chaffee, M. D., Long Beach, and J. Homer Woolsey, M. D., San Francisco.

4. *Partial Pancreatectomy in Chronic Spontaneous Hypoglycemia. A Review of the Surgical Treatment of Hypoglycemia*—Emile F. Holman, M. D., Stanford University School of Medicine, San Francisco, and O. C. Railsback, M. D., Woodland Clinic, Woodland.

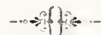
The specific treatment of diabetes, or hypoinsulinism, with insulin, has inevitably brought in its train a knowledge of the effect of its direct counterpart, namely, hyperinsulinism. Surgically, this has been successfully attacked by the removal of an adenoma of the pancreas. A case of hyperinsulinism characterized by spells of unconsciousness due to hypoglycemia is presented in which improvement followed partial resection of the pancreas.

Discussion by Verne Hunt, M. D., Los Angeles.

5. *A Comparative Study of 271 Operations for Diseases of the Gall-Bladder and Ducts*—Harlan Shoemaker, M. D., 1014 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.

A discussion of the various types of operations and technique employed. The pathological findings and results are tabulated. Discussion of liver functions and its application to diagnosis. Comments on the anesthesia problems.

Discussion by Stanley H. Mentzer, M. D., San Francisco, and C. E. Phillips, M. D., Los Angeles.



VI

INDUSTRIAL MEDICINE AND SURGERY SECTION

LEROY C. ABBOTT, M. D., *Chairman*
2000 Van Ness Avenue
San Francisco

JOHN J. LOUTZENHEISER, M. D., *Secretary*
Union Square Building
350 Post Street, San Francisco

First Meeting—Cottage No. 1

Monday, May 2, 2 to 5 p. m.

1. *Industrial Dermatology*—Stanley O. Chambers, M. D., 1260 Roosevelt Building 727 West Seventh Street, Los Angeles.

Modern methods utilized in differential diagnosis have markedly altered our older conceptions of occupational skin diseases and rendered a more scientific approach to the problem. It is with this idea that a review of 280 cases of so-called occupational dermatoses is offered.

Discussion by C. Ray Lounsberry, M. D., San Diego, and Hiram E. Miller, M. D., San Francisco.

2. *Treatment of Adherent Scars*—William S. Kiskadden, M. D., 803 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.

Adherent scars secondary to healing of large infected abrasions and burns, especially when occurring over bony prominences, are difficult to treat and results have frequently been disappointing. Methods of treatment include use of Thiersch, Riverdin, Wolfe; flaps, pedicle flaps, and tunnel grafts. Series of cases and results. Illustrated.

Discussion by George Warren Pierce, M. D., San Francisco; Will L. Miles, M. D., Los Angeles, and Hugh Jones, M. D., Los Angeles.

3. *Incidence of Gas Bacillus Infection in Compound Fractures*—Vernon P. Thompson, M. D., 815 Westlake Professional Building, 2007 Wilshire Boulevard, Los Angeles.

Early diagnosis and management of cases. Illustrated.

Discussion by John C. Wilson, M. D., Los Angeles, and George K. Rhodes, M. D., San Francisco.

4. *Further Observations on Kümmell's Post Traumatic Vertebral Collapse*—Edward S. Blaine, M. D., 1155 Roosevelt Building, 727 West Seventh Street, Los Angeles.

The x-ray finding of partial collapse of vertebral body some time after a back injury, in the absence of the usual clinical signs and symptoms of a compression fracture, has been the subject of much speculation and difference of opinion as to its exact significance. Kummel regards this as a rarefying bone change (collapse) which was initiated by a trauma without actual fracture. Illustrated.

Discussion by Steele F. Stewart, M. D., Los Angeles, and Alfred E. Gallant, M. D., Los Angeles.



Second Meeting—Cottage No. 1

Tuesday, May 3, 8:30 to 11:30 a. m.

1. *Dislocation of the Cervical Spine*—Edward B. Towne, M. D., 612 Union Square Building, 350 Post Street, San Francisco.

Pathological changes in spinal cord, nerve roots, and spine. Futility and danger of laminectomy. Diagnosis and treatment. Taylor's method of reduction and fixation. Results in twelve cases. Illustrated.

Discussion by Howard W. Fleming, M. D., San Francisco, and Edmund J. Morrissey, M. D., San Francisco.

2. *Treatment of Fractures of the Carpal Scaphoid*—Ralph Soto-Hall, M. D., Union Square Building, 350 Post Street, San Francisco.

Review of cases treated by special type of plaster immobilization. Comparative results obtained in late cases by incision of one or both fragments and description of technique of a new and conservative operative procedure consisting of drilling of fragments with ultimate bone union.

Discussion by Ellis Jones, M. D., Los Angeles, and Brooks P. Stephens, M. D., Oakland.

3. *Open Operative Reduction of Fractures Through the Middle Third of the Femur*—Harold Dewey Barnard, M. D., 2417 South Hope Street, Los Angeles.

Illustrating a method of operating these fractures through a window cut in a previously applied plaster cast which allows reduction without introduction of foreign material for maintenance of position.

Discussion by Fraser L. Macpherson, M. D., San Diego, and Newton T. Enloe, M. D., Chico.

4. *Treatment of Fractures of Upper Extremity by Means of Wire Traction Apparatus*—Samuel S. Mathews, M. D., 1003 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.

Bad fractures of the upper extremity have always been difficult to handle because of the inability to control the fragments. The use of the wire pin method in handling such fractures gives a simple and efficient means with the minimum amount of trauma.

Discussion by H. W. Spiers, M. D., Los Angeles, and Carl P. Jones, M. D., Grass Valley.

VII

NEUROPSYCHIATRY SECTION

HENRY G. MEHRTENS, M. D., *Chairman*
Stanford Hospital, San Francisco

H. DOUGLAS EATON, M. D., *Secretary*
811 Medical Office Building
1136 West Sixth Street, Los Angeles

First Meeting—Cottage No. 2
Monday, May 2, 2 to 5 p. m.

1. *Chairman's Address*—Henry G. Mehrtens, M. D., San Francisco.

2. *The Relation of the General Practitioner to Psychiatry*—Charles Lewis Allen, M. D., 939 Pacific Mutual Building, 523 West Sixth Street, Los Angeles.
Present status of psychiatry. Its "extramural" activities. The general practitioner first sees mental cases and should be prepared to handle them intelligently. He should make himself felt in phychiatry and do what he can to prevent this strictly medical discipline from coming under exclusively lay control.

3. *Neurological Complications of Serum Sickness*—John B. Doyle, M. D., 1017 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.
Symptoms and signs indicative of involvement of the nervous system occasionally accompany serum sickness. Such accidents are interesting and worthy of consideration, as their manifestations may resemble commonly observed and well defined neurological syndromes. A clinical review of the author's case and of the cases in the literature is presented.

4. *Studies in Epilepsy*—J. M. Nielsen, M. D., 1253 Roosevelt Building, 727 West Seventh Street, Los Angeles.
Blood sugar studies have been made on serial cases of epilepsy for a period of two years. The studies indicate that hypoglycemia is a requisite in cases of idiopathic epilepsy.

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Second Meeting—Cottage No. 2
Tuesday, May 3, 8:30 to 11:30 a. m.

1. *Psychoanalytic Aspects of Suicide*—Karl A. Menninger, M. D., Kansas City, Missouri. (By invitation.)

2. *The Psychic Effect of Birth Control Measures*—Josephine A. Jackson, M. D., 1971 Morton Avenue, Pasadena.
An ancient practice with traditions of penalties exacted. Sex-reflex in man embodies important psychic as well as physical components. Disturbances from birth control measures likely to be psychic rather than physical. Unrelieved psychic tension becomes nameless dread. Anxiety attaches itself to unrelated conditions. Normal adaptive power regained by insight into emotional reactions. Cases.

3. *The Transference in Neurotic and Other Conditions*—James L. Whitney, M. D., Medico-Dental Building, 490 Post Street, San Francisco.
Occurrence in all medical practice as well as in neurology; not the result of a particular mode of treatment. Dangers of wrong management. Its value and necessity as dynamic agent of cure. Its origin, development, and transformation into reality relationship with the acquirement of consciousness.

4. *Murderers' Row. A Neuropsychiatric Study of Twenty Murderers*—Thomas J. Orbison, M. D., 616 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.
An analysis of twenty-five murders with personal N. P. examination of the murderers. Two groups of deviates are found responsible for a huge bulk of these crimes. The necessity to treat the situation wisely and correctively at its sources rather than to await the inevitable sequellae is stressed.

VIII

OBSTETRICS AND GYNECOLOGY SECTION

CLARENCE A. DEPUY, M. D., *Chairman*
230 Grand Avenue, Oakland

ALICE F. MAXWELL, M. D., *Secretary*
University of California Hospital
Fourth and Parnassus Avenues, San Francisco

First Meeting—Crystal Room
Wednesday, May 4, 8:30 to 11:30 a. m.

1. *Nerve Block (Spinal) Anesthesia*—George D. Huff, M.D., 1003 Medico-Dental Building, 233 A Street, San Diego.
This paper presents observations made in 502 anesthetics used in gynecology and obstetrics. Equipment of syringes, syringe needles, and spinal needles of correct size, length, and bevel is stressed. Preoperative care, novocain crystals, technique of administration, results, post-operative care, and observations are shown by photographs made at the operating table.

2. *Postmenopausal Hemorrhage*—Margaret Schulze, M. D., University of California Hospital, San Francisco.
Definition. Etiology: (a) Uterine—carcinoma, endometrial hyperplasia, polyps and myomata, endometritis, atrophic endometrium without pathologic changes; (b) ovarian tumors—benign, malignant, and granulose-cell tumors; (c) other endocrine factors; (d) other pelvic tumors; prognosis; treatment.

3. *Seven Hundred Consecutive Cases of Sterility*—Frederic M. Loomis, M. D., 350 Twenty-ninth Street, Oakland.
A review of the chief causative factors with an attempt to estimate the value of the various methods of treatment. Sixty-two per cent of these patients presented evidence of endocrine disorder. The methods of examination and chances of success in the individual patient are discussed.

4. *Abdominal Pregnancy*—John A. Sperry, M. D., 903 Medico-Dental Building, 490 Post Street, San Francisco.
Report of ten-pound fetus developing between the folds of the right broad ligament. Symptoms and diagnosis. Mode of development and implantation of placenta. Diagnosis and pathology. Frequency of occurrence. Mortality. Selection of time for operation. Operative technique and discussion of several methods of dealing with the placenta.

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Second Meeting—Crystal Room
Thursday, May 5, 8:30 to 11:30 a. m.

1. *Chairman's Address—A Review of One Thousand Abortions Seen at Highland Hospital, Oakland*—Clarence A. DePuy, M. D., Oakland.

2. *The Friedman Test for Pregnancy*—Lyle G. McNeile, M. D., and Philip A. Reynolds, M. D., 1021 Pacific Mutual Building, 523 West Sixth Street, Los Angeles.
An historical sketch of the development of the endocrine background for the Aschheim-Zondek test for pregnancy and its modification by Friedman; the application of the test in the diagnosis of pregnancy and treatment of hydatid mole and chorioepithelioma; its accuracy and the factors involved in reducing the percentage of errors and a review of a series of cases.

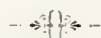
3. *An Experimental Study of Fetal Sex*—John H. Dorn, M. D., 1216 Four Fifty Sutter Street, San Francisco, and Edward I. Sugarman, B. S., 1439 Four Fifty Sutter Street, San Francisco.
A report on four hundred cases similar to those discussed in a previous paper with emphasis on the early diagnosis and complications. An attempt to prognosticate sex before birth. Study of forty cases.

4. *An Analysis of One Thousand Deliveries in a Private Hospital*—E. M. Lazard, M. D., 321 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.

Of these one thousand deliveries, 46.4 per cent were spontaneous and 53.6 per cent were operative deliveries. Reason for high operative incidence. Operative interference consisted of forceps extractions, 40.1 per cent; versions, 3.9 per cent; cesarean sections, 7.9 per cent; breech extractions, 1.7 per cent. Indications for the various operative procedures are discussed. Complications encountered enumerated and discussed and results tabulated.

5. *Toxemias of Pregnancy*.—L. I. Breitstein, M. D., and A. Bernstein, M. D., Union Square Building, 350 Post Street, San Francisco.

All pregnant women are candidates for toxemias. Prenatal care has not diminished the number of cases of toxemias. Prenatal care has detected the onset of toxemias earlier. Recognition of early symptoms and correction prevent toxic condition from becoming serious. Permanent tissue damage from toxemias, especially in kidney and liver, has influenced prophylactic treatment. (Moving pictures.)



IX

PATHOLOGY AND BACTERIOLOGICAL SECTION

ZERA E. BOLIN, M. D., *Chairman*
Mary's Help Hospital
San Francisco

GEORGE D. MANER, M. D., *Secretary*
1003 Pacific Mutual Building
523 West Sixth Street, Los Angeles

Monday, May 2, 2:30 p. m.

Visit by members of section to the High Voltage X-ray Laboratory of the California Institute of Technology. Courtesy of Dr. Seeley Mudd and Dr. C. C. Lauritsen.

First Meeting—Ball Room

Joint Meeting of General Medicine with Pathology and Bacteriology Section

Tuesday, May 3, 8:30 to 11:30 a. m.

The program of this joint meeting is printed under the second meeting of the General Medicine Section. See page 271.

Second Meeting—Cottage No. 1

Wednesday, May 4, 8:30 to 11:30 a. m.

1. *Round Table Discussion—Relation of Chronic Cystic Mastitis to Carcinoma of the Breast.*

Discussion to be led by Robert Greenough, M. D., Boston (by invitation), and Alson R. Kilgore, M. D., San Francisco.

2. *Leiomyoma of the Small Intestine*—Newton Evans, M. D., White Memorial Hospital, Los Angeles, and John L. Jackson, M. D., Los Angeles.

A case report of a leiomyoma of the ileum is presented and the literature reviewed on this subject. A discussion of the possible origin of this type of tumor is included with an account of some of the main gross and histological features.

3. *The Effect of Hypophysectomy on the Growth of Transplantable Tumors in the Albino Rat*—Howard A. Ball, M. D., San Diego General Hospital, San Diego, and Leo T. Samuelson, Ph. D., Los Angeles.

Removal of the hypophysis of albino rats, and hence all of its secretions, is attended by a distinct retardation of the growth rate of a transplantable carcinoma and sarcoma. When hypophysectomy is performed after the carcinoma is partially developed, an immediate slowing of the growth rate is observable. (Lantern slides.)

Third Meeting—Cottage No. 1

Thursday, May 5, 8:30 to 11:30 a. m.

1. *Chairman's Address—Pathology in a Small Hospital*—Zera E. Bolin, M. D., San Francisco.
2. *Physique and Psyche in Phthisis—A Study of Anthropometric Types*—Kenneth P. Jones, M. D., and Emil Bogen, M. D., Olive View Sanitarium, San Fernando.

The physical constitution and psychic make-up of patients suffering with pulmonary tuberculosis have been investigated quantitatively to ascertain whether any factors of "diathesis" or "predisposition" affect the prognosis in this disease. Morphologic, physiologic, psychologic, and psychiatric findings are presented and correlated with the clinical course.

3. *The Tuberculin Ointment Adhesive Tape Test in Animal Experimental and Clinical Trial*—Ernst Wolff, M. D., 1033 Four Fifty Sutter Street, San Francisco.

The author has devised a special tuberculin ointment and ointment control and simplified the technique of application. The sensitiveness of this test is approximately comparable to the intracutaneous test of Human 1:500. The reaction consists in the formation of papules, induration, reddening, and pigmentation over the tested area. (Lantern slides.)

4. *A Study of Five Hundred Consecutive Autopsies in Children*—C. M. Hyland, M. D., 4614 Sunset Boulevard, Los Angeles.

Five hundred consecutive necropsies are reviewed, showing that pneumonia of the various forms leads with fifty-eight deaths. Various forms of tuberculosis caused fifty-three deaths. Forty cases died of a purulent meningitis. In thirty-six instances death was due to some congenital defect. Sixteen deaths were due to neoplasm, and bacillary dysentery caused death in fourteen instances.

5. *Report of Two Parathyroid Tumors*—A. H. Zeiler, M. D., 1003 Pacific Mutual Building, 523 West Sixth Street, Los Angeles; Herman Sugarman, M. D., 1011 Pacific Mutual Building, 523 West Sixth Street, Los Angeles, and Lawrence Chaffin, M. D., 831 Pacific Mutual Building, 523 West Sixth Street, Los Angeles.

6. *Amoebic Invasion of Lymphoid Tissue and Its Probable Significance*—William C. Boeck, M. D., 1709 West Eighth Street, Los Angeles.

Biopsy specimens from diseased glands of Hodgkin's disease were negative for endameba histolytica. Experimental infection of kittens with endameba histolytica revealed early discrete localized abscesses of lymph follicles with indications that the amebae had shown a predilection for these structures. This selective action of the amebae may be the pathological basis of chronic amebiasis. (Lantern slides.)

7. *Bacillary Dysentery—Laboratory Observations and Bacteriophage Therapy*—John F. Kessel, Ph. D., Los Angeles. (By invitation.)

Special studies have been made in the Los Angeles County General Hospital during the last three years on the bacteria isolated from cases of bacillary dysentery and closely related conditions variously described as food infections, diarrhea, and gastroenteritis. A summary of the species distribution is presented, special consideration being given to the differentiation of atypical types, commonly disregarded in laboratory diagnosis.

X

PEDIATRIC SECTION

E. PAUL COOK, M. D., *Chairman*
215 Sainte Claire Building
San Jose

WILLIAM M. HAPP, M. D., *Secretary*
925 Pacific Mutual Building
523 West Sixth Street, Los Angeles

First Meeting—Crystal Room
Monday, May 2, 2 to 5 p. m.

1. *Zones of Normal Physiological Activity and Their Importance in Pediatrics*—William Palmer Lucas, M. D., H. B. Pryor, M. D., A. C. Bost, M. D., and Saxton T. Pope, M. D., 806 Medico-Dental Building, 490 Post Street, San Francisco.

A new approach in the study of the individual consists of comparing him in terms of degrees of deviation from average standards in the field of physiological activity. The direction and degree of variation for different body types can by this method be established by correlation with the numerical index of body build.

2. *Massive Generalized Infection with the Tubercle Bacillus in Children—Case Reports Showing Recovery from Symptoms*—Lloyd B. Dickey, M. D., Stanford Medical School, San Francisco.

When pulmonary tuberculosis occurs in children, with the presence of symptoms of the disease, and when there are other multiple foci in various organs, the physician is usually justified in giving an unfavorable prognosis. In an occasional instance, however, as exemplified by the cases herewith presented, children may handle an enormous amount of generalized infection, if proper procedures be instituted.

3. *Epilepsy in Children with Particular Reference to Ketogenic Diet*—Howard R. Cooder, M. D., 1002 Wilshire Professional Building, 3875 Wilshire Boulevard, Los Angeles.

In epilepsy there is no proven etiology and no demonstrable pathology. However, considerable advancement has been made in therapy in the past ten years. Treatment by dehydration, fasting ketogenic diet, barbitals, and mental hygiene discussed.

4. *Relapsing Fever in Children*—Arthur E. Varden, M. D., 575 Fifth Street, San Bernardino.

Short résumé of the history, incidence (emphasizing the various foci in certain mountainous regions of California and Nevada), mode of transmission, and pathology. Symptoms and signs, with special reference to children. Differential diagnosis, prognosis, and treatment. Review of the literature and two brief case reports. (Lantern slides.)



Second Meeting—Crystal Room
Tuesday, May 3, 8:30 to 11:30 a. m.

1. *An Evaluation of Present Methods of Diphtheria Immunization*—H. E. Thelander, M. D., 412 Fitzhugh Building, 384 Post Street, San Francisco.

A study of the literature and records in clinic and office practice reveals that toxoid is rapidly replacing toxin-antitoxin as an immunizing agent against diphtheria. The advantages and disadvantages of both toxoid and toxin-antitoxin are discussed. Suggestions for further studies are outlined.

2. *A Trial of TAF in Immunization Against Diphtheria*—Harold K. Faber, M. D., and Mary I. Preston, M. D., Stanford Hospital, San Francisco.

TAF is a suspension in physiological salt solution of a stable, completely neutralized, water-insoluble diphtheria toxin-antitoxin combination. One hundred children from the Stanford Children's Clinic, all Schick positive, were injected with TAF. At approximately six months the Schick tests were repeated. Tests were also made for sensitization to horse serum.

3. *The Prophylactic Treatment of Measles with the Blood of Immune Persons*—Clifford Sweet, M. D., 242 Moss Avenue, Oakland.

Experiences in the prophylactic treatment of measles during the last epidemic will be presented and commented upon.

4. *Principles of Prophylaxis Against Typhoid Fever, Whooping Cough, Scarlet Fever and Smallpox*—Karl F. Meyer, Ph. D., Hooper Foundation, San Francisco. (By invitation.)

Earlier methods of prevention were directed against means of transmission and on isolation. Lately increased attention has been paid to artificial immunization. Discussion will include: (a) attack upon the reservoir of infection; (b) attack upon transmitting agent; (c) raising the resistance to infection.



XI

RADIOLOGY SECTION

L. HENRY GARLAND, M. D., *Chairman*
1739 Four Fifty Sutter Street
San Francisco

HENRY SNURE, M. D., *Secretary*
Physicians and Surgeons Building
1501 South Figueroa Street, Los Angeles

First Meeting—Cottage No. 4
Monday, May 2, 2 to 5 p. m.

1. *Chairman's Address*—L. Henry Garland, M. D., San Francisco.
2. *Round Table Discussion on Technical and Business Matters*—Henry J. Ullmann, M. D., Santa Barbara, leader.
Technique—Diagnosis—Carl Bowen, M. D., Oakland; Therapy—Orville N. Meland, M. D., Los Angeles.
Economics—General—Robert Newell, M. D., San Francisco; Industrial—Lowell S. Goin, M. D., Los Angeles, and Therapy—Orville N. Meland, M. D., Los Angeles.
3. *Dutch Dinner at 6 p. m.*



Second Meeting—Ballroom

**Joint Meeting of General Medicine with
Radiology Section**

Wednesday, May 4, 8:30 to 11:30 a. m.

The Program of this joint meeting is printed under the third meeting of the General Medicine Section. See page 271.



Third Meeting—Cottage No. 4

Thursday, May 5, 8:30 to 11:30 a. m.

1. *Malignancy—A Group Problem*—John D. Lawson, M. D., Woodland Clinic, Woodland.
Necessity of consultation on all patients in whom malignancy is suspected or known. This consultation must be both as to diagnosis and treatment. The entire group, consisting of at least a surgeon, pathologist, and radiologist, must see every patient. Advantages of dermatologist and internist in association with the remainder of the group as to current literature on malignancy. Inability of individual practitioner to properly handle malignancy.
2. *Treatment of Ear Malignancies*—Henry J. Ullmann, M. D., 1520 Chapala Street, Santa Barbara.
It is frequently stated that the treatment of ear malignancies by cautery or electrocoagulation is preferable to treatment by radiation be-

cause of the difficulty in obtaining satisfactory healing of cartilage following large doses of roentgen rays or radium. Cases are presented showing healing of cartilage following the treatment of carcinoma of the ear by large doses of the roentgen ray. One case is shown where there was a perforation of the helix by the tumor growth, and, following intensive roentgen irradiation, there is complete healing, leaving a hole through the helix, the rim of which is completely covered by skin.

3. *Diverticulosis of the Duodenum*—Kenneth S. Davis, M. D., St. Vincent's Hospital, Los Angeles.

Diverticula of the duodenum were found twenty-four times in 2,580 consecutive gastrointestinal examinations at Saint Vincent's Hospital; an incidence of approximately 1 per cent. Two very interesting cases are taken up in detail; the remainder of the paper consists of a brief résumé of other reported cases.

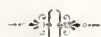
4. *Linitis Plastica—Report of a Case*—Francis B. Sheldon, M. D., and Charles D. Holliger, M. D., 203 Medico-Dental Building, Stockton.

In this report we have the findings as revealed by the x-ray one year before and at the time when the diagnosis was made. There is some question in the present case as to whether this is a lesion of lues or carcinoma.

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Radiologic Exhibit

Four large viewing cabinets, showing films of peptic ulcer, nontuberculous and tuberculous lesions of the chest, will be found in the scientific exhibit rooms, opposite the commercial exhibits.



XII

UROLOGY SECTION

NATHAN G. HALE, M. D., *Chairman*
Medico-Dental Building
1127 Eleventh Street, Sacramento

JAMES C. NEGLEY, M. D., *Secretary*
Brack Shops Building
527 West Seventh Street, Los Angeles

First Meeting—Cottage No. 3

Wednesday, May 4, 8:30 to 11:30 a. m.

1. *Chairman's Address—The Progress of Urological Surgery*—Nathan G. Hale, M. D., Sacramento.
2. *Multiple Myeloma*—Anders Peterson, M. D., 810 Medical Office Building, 1136 West Sixth Street, Los Angeles.

The subject deals with multiple myeloma, with its associated kidney pathology confusing a diagnosis of malignancy of the kidney. The subject will be presented with x-ray plates and microphotographic demonstrations of the myeloma and the kidney pathology.

Discussion by Verne C. Hunt, M. D., Los Angeles, and William E. Stevens, M. D., San Francisco.

3. *Perirenal infections*—Charles P. Mathé, M. D., 450 Sutter Street, San Francisco.

Deals with classification embracing perinephritis and perinephritic abscess. Etiology, including hematogenous type and that secondary to infectious processes of kidney and neighboring organs. Diagnosis calling attention to its obscurity with emphasis on certain signs which enhance its detection. Treatment emphasizing importance of surgical intervention—nephrolysis and open drainage of abscess formation.

Discussion by George F. Schenck, M. D., Los Angeles, and Frank Hinman, M. D., San Francisco.

4. *Surgical Relief of Bladder-Neck Obstructions*—Wilbur B. Parker, M. D., Brack Shops Building, 527 West Seventh Street, Los Angeles.

Discussion by Miley B. Wesson, M. D., San Francisco.

5. *Calcium Therapy in Urology*—Henry A. R. Kreutzmann, M. D., 2000 Van Ness Avenue, San Francisco.

Discussion of the action of calcium in the body. Description and method of the injection with a discussion of the various salts which can be used. Explanation of the use of calcium in salpingitis, epididymitis, ureteral calculi, and ureteral colic with case reports and a résumé of the results obtained in the various types of cases.

Discussion by Franklin Farman, M. D., Los Angeles, and William W. Cross, M. D., Oakland.

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Second Meeting—Cottage No. 3

Thursday, May 5, 8:30 to 11:30 a. m.

1. *Diverticuli of the Urinary Bladder*—A. A. Kutzmann, M. D., 316 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.

Review of over one hundred collected cases from the Los Angeles County General Hospital. Etiology: acquired, congenital or without demonstrable cause. Diagnosis: cystoscopic, x-ray, cystograms, liquid media and air, and found at operation. Treatment: directed at diverticuli or directed at causative factor or both. Discussing methods adopted and reason for same. Results: immediate and over a period of time.

Discussion by Edward W. Beach, M. D., Sacramento; and H. A. R. Kreutzmann, M. D., San Francisco.

2. *Renal Tuberculosis—A Feature Study*—Robert V. Day, M. D., 1930 Wilshire Boulevard, Los Angeles.

In approximately what percentage of cases is early renal tuberculosis bilateral? Is there ever complete healing of a tuberculous kidney involving the cortex only? Why does a clinically proven renal tuberculosis never completely heal? Discussion of the theories and experimental data of Thomas and Metzler.

Discussion by Thomas E. Gibson, M. D., San Francisco, and A. J. Scholl, M. D., Los Angeles.

3. *Surgery of the Undescended Testis*—James R. Dillon, M. D., 490 Post Street, San Francisco.

Brief review of the literature regarding the occurrence, etiology, and endocrinology. Factors involved in the proper repair. Discussion of the various operative procedures and results. (Lantern slides.)

4. *Ruptures of the Ureter, Spontaneous and Accidental*—Miley B. Wesson, M. D., 490 Post Street, San Francisco.

There is a dearth of reports in the literature, but undoubtedly such accidents, though rare, do occur. A normal ureter cannot be punctured by a catheter unless a wire stylet or whalebone tip is used. Diseased ureters, particularly those weakened by a stone, may perforate and the accident not be recognized because of lack of symptoms. Three cases are reported. Two were due to overinjection of weakened ureter blocked with stone, and the other was a spontaneous rupture secondary to perinephritic abscess.

Discussion by Jay J. Crane, M. D., Los Angeles, and A. H. Rosburg, M. D., San Francisco.

5. *The Physician as an Expert Witness—His Qualifications, Duties and Limitations, with Suggestions for Relief of Present Status of Expert Witnesses*—Daniel Beecher, Deputy District Attorney of Los Angeles County, Los Angeles. (By invitation.)

VII—WOMAN'S AUXILIARY

WOMAN'S AUXILIARY

to the

**CALIFORNIA MEDICAL ASSOCIATION
1932 ANNUAL CONVENTION
HUNTINGTON HOTEL, PASADENA
MAY 1-5, 1932**

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Mrs. Henry G. Westphal
Mrs. A. H. Zeller

PROGRAM MEETINGS AND ENTERTAINMENT

Annual Convention.—Woman's Auxiliary to the California Medical Association. Headquarters: Huntington Hotel, Pasadena, May 1st to 5th, 1932.

Sunday, May 1

Arrival of delegates, members and guests.

Greeted by delegation hostesses.

4:00 p. m.—Tea in hotel lobby; music.

6:30 p. m.—Round Table dinner for Auxiliary members.

8:30 p. m.—Moving pictures, Huntington Hotel ballroom.

Monday May 2

9:00 a. m. to 4:00 p. m.—Registration.

10:00 a. m.—Meeting State Board.

12:30 p. m.—Round Table luncheon for Auxiliary members.

2:00 p. m.—Garden tours. Trip to Mt. Lowe.

4:00 p. m.—Tea in hotel lobby; music.

6:30 p. m.—Round Table dinner for Auxiliary members.

8:00 p. m.—Gilmor Brown presents Community Players in one-act play in Huntington Ballroom.

Tuesday, May 3

9:30 a. m.—Opening session.

12:30 p. m.—Luncheon in honor of Mrs. Sargent, Huntington Hotel. Mrs. James F. Percy will preside.

2:00 p. m.—Visit Huntington Library.

4:30 p. m.—Reception and tea in honor of Mrs. Harris in Huntington Hotel Gardens.

7:30 p. m.—President's dinner, Huntington Hotel.

10:00 p. m.—President's Ball.

Wednesday, May 4

9:30 a. m.—Second session and election of officers.

1:00 p. m.—Luncheon in honor of Mrs. Coulter at Woman's Athletic Club, Los Angeles. Mrs. William H. Sargent will preside. "Fashion Show."

2:30 p. m.—Visit Olvera Street. Sightseeing and shopping.

6:30 p. m.—Dinner in patio of Community Playhouse.

8:00 p. m.—Pasadena Community Playhouse—"I Love an Actress"—Hungarian comedy by Lazlo Fodor.

Thursday, May 5

9:30 a. m.—Post-convention State Board meeting.

11:00 a. m.—Motor trip through Hollywood, Beverly Hills, Bel-Air, The Riviera, to Santa Monica.

1:00 p. m.—Luncheon at Casa del Mar Beach Club, Santa Monica.

All women attending the convention, whether Auxiliary members or not, are urged to register and are cordially invited to participate in the activities offered on this program.

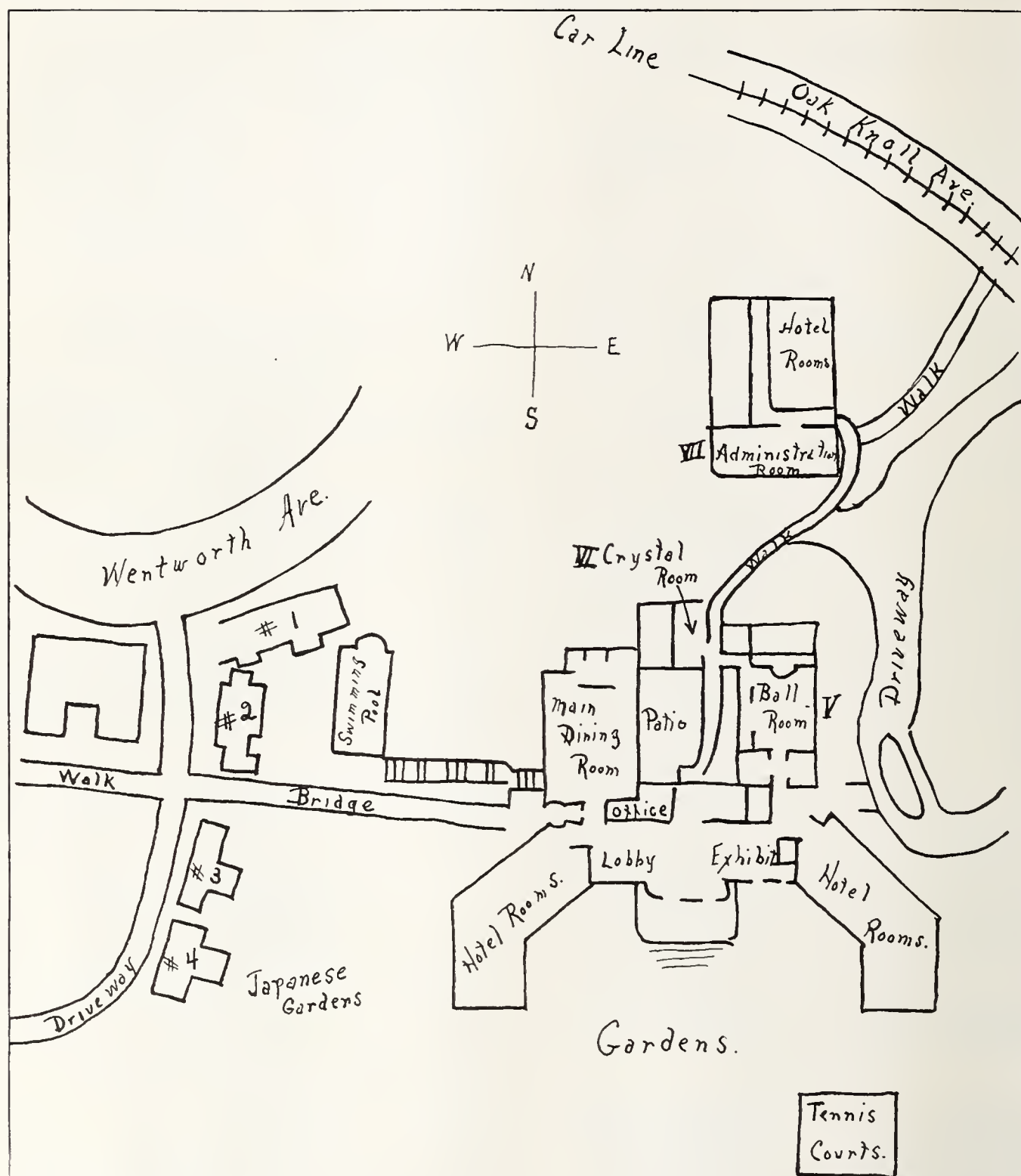


Chart 2.—Showing location of main building of Hotel Huntington and of bungalow meeting rooms (1 to 4) and of other meeting places.

Huntington Library.—Apropos of the Huntington Library, which is here mentioned, the following information concerning the United States Library of Congress "incunabula" or "cradle books" is printed:

Through an appropriation of \$1,500,000 from Congress the Library of Congress now owns the Vollbehr collection of 3000 incunabula, including the three-volume Gutenberg St. Blasius-St. Paul copy of the 42-line Bible. An incunabulum is any book printed before January 1, 1501, and so is from 430 to 475 years old.

About the middle of the fifteenth century Gutenberg, after many years of secret experimenting, succeeded in devising means of making cheaply separate metal type and a way to keep those type to-

gether when set up to form words and sentences. It took Gutenberg five years to make two hundred copies of his Bible. When the five years were over the Bible was finished—but Gutenberg was bankrupt. He had had to construct the whole technique of manufacture—invent wooden presses, make the type—a slow and costly business at first. He made only enough to set up about four pages. He struck off thirty copies on parchment and about 170 on paper. Then he distributed the little stock of type and set up the next four pages. He made more type and more presses until he had six going. He also manufactured his own ink, an art in itself. The early printers made good ink, the impressions from which are as black and well defined today as they were nearly 500 years

ago. Then there was the costly paper or parchment to assemble. The skins of about 300 sheep went into one vellum copy. . . .

Within five years after the Bible was finished the printing press had been set up in Strassburg. The sack of the city of Mainz in 1462 scattered printers to Cologne. By 1468 they were at work in Italy, in the early 70's they were printing in Paris, soon afterwards in Spain. Before the end of the fifteenth century printing was going on from Gripsholm in Sweden to Valencia in Spain, from Vienna to Oxford—in 258 cities and towns.

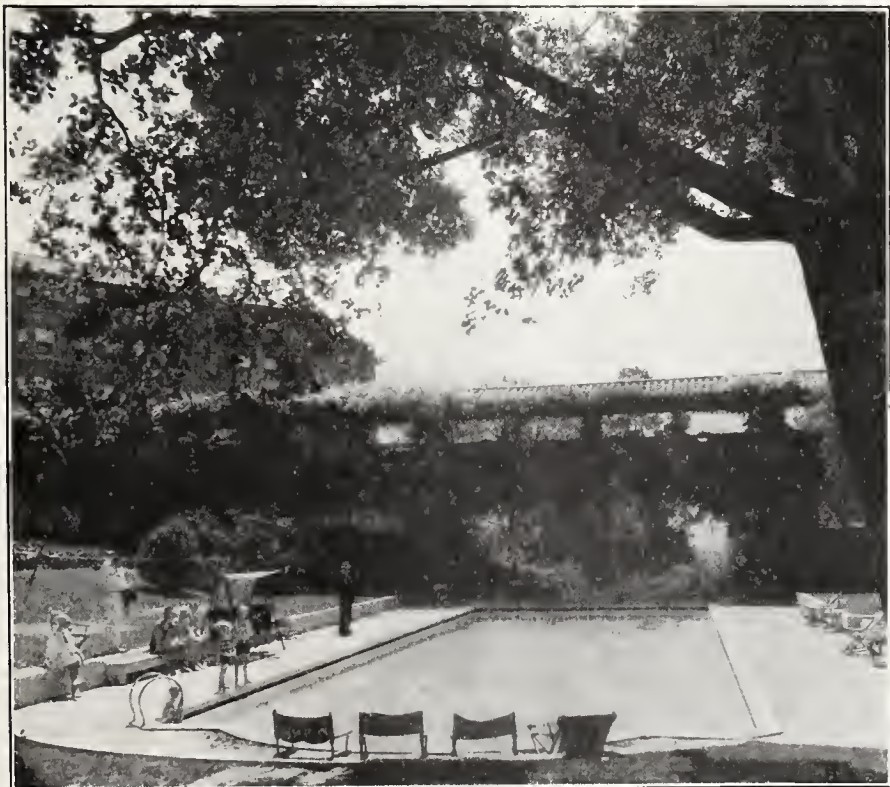
In the first fifty years probably 30,000 different editions of various works were printed. They covered the whole field of fifteenth century thought. Dr. Vollbehr's aim was to make a collection that would adequately represent this thought. To an amazing degree his library contains specimens of every sort of publication that came from the fifteenth century presses. . . .

During the first 110 years of its history the United States Library of Congress had gathered together about 600 specimens of fifteenth century printing. In 1927 the Library received a bequest of 929 other incunabula. The Library's total collection of books printed before the end of the fifteenth century is now 4545 volumes. The largest collection is in the State Library in Munich, which has about 16,000 specimens, largely the result of bringing together several old

monastic libraries consisting very largely of religious works. The British Museum has about 13,000; the Bibliotheque Nationale in Paris about 10,000. Only one library in the western hemisphere has now more than the Library of Congress—the Huntington Library in California with about 5300.—Data from Frederick W. Ashley, Chief Assistant Librarian, Library of Congress. Printed in *The American Scholar*, January, 1932.



The Henry E. Huntington Library and Art Gallery in San Marino, an exclusive section of Pasadena, very near the Huntington Hotel, is one of the finest institutions of its kind in the world. This library comprises about 200,000 rare books and more than 1,250,000 original manuscripts and letters. The books alone are valued at around \$30,000,000. The art gallery, which is housed in the former Huntington residence, contains the greatest collections of English portraits ever gathered under one roof. It ranks with the greatest collections in the world. One of the most famous paintings is that of Gainsborough's "Blue Boy."



Summertime! A friendly, warm sun; a game of badminton or tennis—and then a dip in the crystal-clear swimming pool on the Huntington grounds. Al fresco luncheon and supper parties around the pool cannot be exceeded for their gayness at any place short of the Riviera, and perhaps not there. A huge barbecue pit is at one end of the pool, efficiently attended by the Chef and his assistants.



Outstanding in the group of Civic Center buildings is the City Hall. Illustration shows one of the towers.

STATE MEDICAL ASSOCIATIONS

CALIFORNIA MEDICAL ASSOCIATION*

JUNIUS B. HARRIS.....President
JOSEPH M. KING.....President-Elect
EMMA W. POPE.....Secretary

OFFICIAL NOTICES

Hotel Huntington

Rates for Annual Session, May 2-5, 1932

American Plan only—All rooms with bath:

Double room, \$7 each person.

Two singles (connecting), \$8 each person.

Single room, \$9 each person.

Early reservation is advisable. Address Hotel Huntington, Pasadena.

* * *

Next Council Meeting.—The date of the next meeting of the Council has been set for Sunday, May 1, at 8 p. m. in Cottage No. 5 at the Huntington, Pasadena.

* * *

This Is the Last Issue Which Will Be Mailed to Delinquent Members

If *you* are among those on the "delinquent" membership list of the State Association, you should get in touch with the secretary-treasurer of your county medical society immediately. Prompt payment of dues will insure the continuance of the JOURNAL, as well as other organization advantages.

In compliance with federal postal regulations the names of all unpaid members must be removed from the JOURNAL mailing list after this April issue appears.

Membership dues for 1932 were due on or before January 1. This obligation was met promptly by a large percentage of the members. As a courtesy to those few who, through neglect or oversight, have thus far failed to pay their 1932 dues, the JOURNAL

* For a complete list of general officers, of standing committees, of section officers, and of executive officers of the component county societies, see index reference on the front cover, under Miscellany.

has been mailed for the first four months of this calendar year. See California Medical Association constitution and by-laws, Chapter X, Section 1, and Chapter II, Section 2.

DEPARTMENT OF PUBLIC RELATIONS OF THE CALIFORNIA MEDICAL ASSOCIATION

The director had the pleasure of being one of the two guest speakers at the semiannual dinner meeting of the Los Angeles Medical Association which was held March 20 at the Jonathan Club, the other guest speaker being Dr. Dan Crosby of Oakland.

The meeting was presided over by Dr. William R. Molony, president of the association, who stated that the attendance was larger than any previous meeting that he had presided over during his term of office.

There was remarkable interest shown by those present in the various phases of medical economics as presented by the speakers.

Dr. Franklin Martin, director of the American College of Surgeons, spoke on the value which a Basic Science Act (qualifying certificate) could perform in preventing advent of still unborn cults.

The two guest speakers spoke of modern-day trends in medical practice, with particular reference to economic phases. The meeting was then turned over for general discussion and suggestions, many members of the association participating.

Several speakers emphasized the importance of just such meetings, commenting on the value of the good fellowship features, and that in the round table and general discussions many of these economic problems could be clarified.

* * *

VIOLATIONS OF FEDERAL CALIFORNIA NARCOTIC LAWS

A recent editorial in the *Examiner* discussed the scandal of narcotic law violations which came to light in the death some time ago of a well known movie star.

The annual report of the California Board of Medical Examiners is just off the press. The following paragraph is taken from page 22:



At the west entrance of Pasadena, on Colorado Street, is the famous bridge bearing the name of the street—the Colorado-Street Bridge. Many thousands of cars cross the bridge daily and the beautiful arroyo beneath it.

"As noted in prior reports, narcotic violators comprise the largest group of those charged with unprofessional conduct. Some convicted of alleged traffic and others acknowledge their addiction to narcotics. In its endeavor to save the individual from becoming a derelict, the board imposes such penalty as is believed to be helpful in salvaging the individual. Probation without a permit to prescribe narcotics, or without possession thereof, is often imposed. This watchful supervision has been found most helpful, for the licentiate realizes that further transgression will result in the revocation of his right to practice his profession. If a violation be highly technical, the board suspends judgment."

1 1 1

The March 10 *Examiner's* editorial was as follows:

SWIFTER JUSTICE FOR DOCTORS WHO PROFIT
BY PRESCRIBING DOPE

"How swiftly time passes, and how slowly justice creeps along! It is now more than a year since the passing of Alma Rubens, beautiful and beloved star of movie-land whose death was hastened by the ravages of dope.

"It is now more than three years since she told an *Examiner* reporter the shockingly tragic story of her addiction to narcotics; of the torturing agonies endured in the fight to free herself from what she called the living death of slavery to the dope habit.

"That story still rings in the memory of all who read it, and no passages more clearly than those relating the innocent manner in which the habit was acquired and how it was fostered by fiends in human form; by physicians who profited by prescribing it and by dealers trafficking in the poison she craved.

"Afraid to tell her mother, her loved ones or her friends, she could yet tell others, and of some of them she said:

"Those who did know were eager to help me continue so that they could make money out of my pain.

"I have known only big fees and many prescriptions. Thank God, I never lowered myself to seek this living death from dark haunts and sordid sources. But those to whom the law gives a right to prescribe gave me so little at a time, and in a few days I was back again, asking for more, and paying a small fortune to get it."

"That she got far more than the law allows from one physician to whom the law gave the right to prescribe, is charged against a doctor under indictment but yet to be tried in a Federal Court.

"More than a year since her death; more than three years since she told her pitiful story in the hope of saving others from her miserable fate, and yet the accused has not been brought to trial!

"How slow is justice in dealing with dope dealers; how swift is death in dealing with their victims! . . .

"If the accused physician is found guilty, he will not only merit a long term in the penitentiary, but will be suspended by the State Medical Board at its meeting in July.

"Even if not convicted in the Federal Court, his case is almost certain to be passed upon by the medical board as one involving an alleged breach of medical ethics.

"The board has ample power to deal with breaches of ethics and, if satisfied that a physician has been guilty of prescribing slow poison for profit, it can cancel his license to practice.

"No reputable medical board would want to protect rascals and thereby bring upon the whole profession the odium that belongs only to the rascals.

"Those prescribing dope for profit, as those selling it for profit, are worse than murderers and their punishment should be lifelong imprisonment without hope of pardon or parole."

* * *

CONDITIONS OF PRACTICE IN SASKATCHEWAN

We are indebted to Dr. A. M. Young, Registrar of the College of Physicians and Surgeons of Saskatchewan, Canada, for the following outline of the medical economics situation in the Province of Saskatchewan.

"In this province we have three large T. B. Sanatoria, operated by the Anti-Tuberculosis Commission which is not appointed by the government. The Sanatoria were built almost exclusively by money provided by the government. Treatment is given free to the individual quite irrespective of his ability to pay. Each municipality is taxed a certain amount each year to pay all the expenses. Any patient referred by a physician may be examined free of cost, by a member of the staffs of the Sanatoria. There is a certain amount of educational and preventive work carried on, but paid for out of the fund raised by the sale of Christmas seals.

"There are also venereal clinics conducted at various centers in the province without charge to the patient. Vaccines and serums for the prevention of contagious diseases are supplied without charge by the Department of Public Health.

"A Council of any Rural Municipality may bonus a doctor to the extent of \$1,500 per annum. This is

occasionally done in areas sparsely populated to induce doctors to locate. Sometimes arrangements are made that for this he must perform the duties of medical health officer and attend to the indigent sick. There are about twelve or fifteen such appointments. A Council may also engage a doctor on full time, to attend to the medical work within the municipality, and pay up to \$5,000 per annum. This, however, can only be done after a by-law has been referred to the people and receives the necessary indorsement. We have about twenty or twenty-five such appointments. We have approximately four hundred and fifty practitioners in the province. It will readily be seen that if all municipalities adopted this scheme, that State Medicine would exist in a large degree in the province. This law has been in effect for approximately ten years, with the results as above indicated.

"Our province has been passing through very difficult times, on account of having a drought area, for the past two or three years which covers one-third to one-half of the province and also due to the general depression. Many of our doctors, owing to the difficulty in collections, would be willing to accept a municipal position, who are otherwise entirely opposed to the principle. On the other hand, quite a few councils which would be willing in ordinary times to engage a municipal doctor, hesitate to place any more direct responsibility on the municipality."

CANCER COMMISSION OF THE
CALIFORNIA MEDICAL
ASSOCIATION

Program at the Annual Meeting, May 1-5.—Following is a schedule of cancer features during the convention, planned for the general sessions, section meetings and events under the auspices of the California Medical Association Cancer Commission.

Sunday, May 1—Microscopic Pathology Conference, to be held at the White Memorial Hospital, Boyle and Michigan avenues, Los Angeles.

Program

10:00-10:30 a. m.—Gliomata (Classification), Cyril B. Courville.

10:30-12 noon—Gynecological Cases, Newton Evans; Warren Harding (by invitation).

12:00-1:00 p. m.—Bone Tumor Cases, Charles L. Connor.

2:00-2:10 p. m.—Grading of Epithelioma, D. S. Pulford. (Lantern slide demonstration.)

2:10-2:55 p. m.—Epithelial Tumor Cases, Zera E. Bolin.

2:55-3:45 p. m.—Breast Cases, A. R. Kilgore.

3:45-4:30 p. m.—Lymph Gland Cases, Roy W. Ham-mack.

4:30-5:00 p. m.—Genito-Urinary Cases, Thomas E. Gibson.

The number attending will be necessarily limited by the capacity of the laboratory (forty). Members desiring to attend will need to reserve places and reservation will be made in order of receipt of application by the Cancer Commission, preference being given to hospital pathologists.

Monday, May 2—Address by Dr. Robert B. Greenough, Boston, at the first general session in the Huntington Hotel ballroom. Subject: "What the Medical Profession Can Do to Reduce Mortality from Cancer."

Cancer Commission Luncheon, in the large dining room, for members of clinical and general Cancer Commission committees and for members of the California Medical Association interested in cancer.

Program

Survey of a Year's Work—C. A. Dukes, Chairman; Report of Gynecological Tumors Committee—Edward N. Ewer, Chairman of Committee on Gynecological Tumors; Review of Activity in Southern California—Orville N. Meland, Secretary for Southern California; Plans for Work of Next Year—A. R. Kilgore, Secretary.

Tuesday, May 3—Papers on cancer, to be presented at a symposium of the General Surgical Section at its second meeting, Administration Room, 8:30 to 11:30 a. m. (See official program in this issue.)

Wednesday, May 4—Round-table conference on cancer, to be held by the Pathology and Bacteriology Section in Cottage 1, 8:30 to 11:30 a. m. (See official program in this issue.) Dr. R. B. Greenough will be present as guest of the section.

Thursday, May 5—Therapeutics of malignancy, to be considered in two papers read at the third meeting of the Radiology Section, Cottage 4. (See official program in this issue.) Dr. R. B. Greenough will be a guest of the section.

A. R. KILGORE, *Secretary*.

THE WOMAN'S AUXILIARY OF THE CALIFORNIA MEDICAL ASSOCIATION*

Annual Meeting of the Woman's Auxiliary Hotel Huntington, Pasadena, May 2-5

For complete program, see page 278.

All women attending the convention, whether auxiliary members or not, are cordially invited to attend the annual convention sessions.

The Los Angeles County Auxiliary is in charge of the program of entertainment for visiting women, which will be found on other pages of this issue of CALIFORNIA AND WESTERN MEDICINE.

Immediately upon arrival in Pasadena you should register at auxiliary headquarters, where you will receive your program and information as to meetings and entertainments.

Auxiliary delegates and alternates must present credential cards before attending convention meetings.

Auxiliary members, please bring your membership cards with you.

Hours of registration: Monday, 9 a. m. to 4 p. m. daily.

Credential table: Tuesday and Wednesday, 9 a. m. to 11 a. m.

Program of Meetings Tuesday, 9:30 a. m.

Convention called to order.
Roll call.
Report of Credential Committee.
Convention rules.
Welcome and response.
Reading of minutes if required.
Treasurer's report.
Report of president, president-elect, corresponding and recording secretaries.
Reports of state chairmen.
Reports of county presidents.
Election of nominating committee.
Address—The Doctor's Family,—Clifford Sweet, M. D., Oakland.
Adjournment.

Wednesday, 9:30 a. m.

Convention called to order.
Report of Credential Committee.
Report of Budget Committee.
Election of district councilors—Napa, Los Angeles, San Diego districts.
Election of state officers.
Reading of the three winning essays on "Educating a Doctor's Wife."
Greetings from the National Auxiliary by Mrs. James F. Percy, second vice-president of the National Auxiliary.
Report of Resolutions Committee.
Adjournment.
All sessions will start promptly at time indicated.

* As county auxiliaries to the Woman's Auxiliary of the California Medical Association are formed, the names of their officers should be forwarded to Mrs. Louis H. Dyke, chairman of Publicity and Publications Committee, 6008 Rose Street, Oakland. Brief reports of county auxiliary meetings will be welcomed by Mrs. Dyke and must be sent to her before publication takes place in this column. For lists of state and county officers, see advertising page 6. The Council of the California Medical Association has instructed the editors to allocate one page in every issue for Woman's Auxiliary notes.

Component County Auxiliaries

Los Angeles County.—Two hundred members of the Woman's Auxiliary to the Los Angeles County Medical Association attended the regular meeting on February 18.

Preceding the meeting the board of directors discussed plans for the state convention to be held in Pasadena in May. The delegates and alternates were selected and chairmen of the various committees appointed.

Mrs. Fred Clarke of Long Beach extended an invitation to Mrs. Philip S. Doane, County President, and Mrs. James Fulton Percy, junior past state president, to meet the Long Beach members at a luncheon at the Virginia Country Club on February 24 and speak on the work of the Woman's Auxiliary.

Mrs. Doane, president, opened the meeting and then presented Dr. Aaron J. Rosanoff, who spoke to the members on "Mental Hygiene."

The program was followed by a tea served by the Huntington Park members.

1 1 1

Orange County.—The Woman's Auxiliary of the Orange County Medical Association held their February meeting in the Ebel Club rooms in Fullerton, with Mrs. Claude Steen, Mrs. E. J. Steen, Mrs. Camp, and Mrs. Counter as hostesses. Mrs. Ball appointed the following as chairmen of their committees:

Social—Mrs. John Ball.
Courtesy—Mrs. J. I. Clark.
Program—Mrs. F. E. Coulter.
Publicity—Mrs. E. Raitt.
Hygeia—Mrs. Hiram Curry.
Membership—Mrs. H. G. Huffman.
Speakers' Bureau—Mrs. Newkirk, Mrs. Sutherland, and Mrs. Maroon.

A letter was read by Mrs. Hollingsworth from Mrs. Quaintance outlining the budget for the physician's family. It was moved and seconded that this auxiliary would adopt the plan. Mrs. Hollingsworth was appointed chairman of a committee to obtain budgets and distribute them.

Flowers were sent to Mrs. Yeagle and Mrs. Chaplind, who have been ill.

Mrs. Curry reported on a meeting of the San Bernardino Auxiliary that she and Mrs. Coulter had attended.

Dr. Thomas F. Joyce, superintendent of the State Narcotic Hospital at Spadra, was the guest speaker. In an interesting way, he told briefly of his work at Spadra.

1 1 1

Sacramento County.—Mrs. Frederick Scatena gave a delightful Christmas party to the members of the Woman's Auxiliary of the Sacramento County Medical Association, in December. Bridge was the diversion of the evening, with prizes at each table. Everyone had a wonderful time, and voted Mrs. Scatena a most charming hostess.

The January meeting was held at the home of Mrs. William K. Lindsay, with Mrs. Dave Dozier, Mrs. Davis, and Mrs. R. G. Santar as joint hostesses. Mrs. Frank Bendel is giving a course of three studies of state public health laws and regulation. The first was given at the home of Mrs. Lindsay. Dr. Junius Harris gave a lecture on the "History of Medicine in Northern California." The lecture, with slides of the early days in California, was most interesting. Refreshments followed.

1 1 1

San Bernardino County.—The January meeting of the Woman's Auxiliary to the San Bernardino County Medical Association was held in the Y. W. C. A. building. Mrs. F. E. Clough, being health editor chairman of the Y. W. C. A., was responsible for holding the meeting in this beautiful building, which is a charming edifice of Spanish design, and its use at this time was much appreciated.

The topic of the day was "Health," and a most interesting program was given. Mrs. F. E. Coulter, state president-elect, gave an interesting and very in-

formative talk on "Why an Auxiliary?" Doctor Landon, president of the County Medical Society, spoke briefly, and also Doctor Godfrey, director of the County Health Unit.

Mrs. Walter Pritchard, Mrs. Arthur Varden, and Mrs. E. L. Tisinger were hostesses during the tea hour.

The following were guests during the afternoon: Mrs. Percy, Junior Past State President; Mrs. Philip Schuyler Doane of Pasadena; Mrs. R. F. Sarnier, president of the Y. W. C. A.; Miss Laura Fullerton, secretary of the Y. W. C. A.; Mrs. T. R. Carlisle, secretary of the Red Cross; and Doctor Duffield.

The state board of directors of the Woman's Auxiliary of the California Medical Association for 1931 and 1932:

President—Mrs. William Henry Sargent, 109 Beechwood Drive, Oakland.

President-elect—Mrs. F. E. Coulter, 826 South Ross Street, Santa Ana.

First vice-president—Mrs. Charles Stevens, 2325 Santa Barbara Street, Santa Barbara.

Second vice-president—Mrs. S. N. Weil, Rodeo, Contra Costa County.

Recording secretary—Mrs. Maynard Harding, 4529 Rhode Island Street, San Diego.

Corresponding secretary—Mrs. A. A. Alexander, 155 Woodland Way, Piedmont.

Treasurer—Mrs. C. J. Teass, 890 Los Osos, San Luis Obispo.

COUNCILORS-AT-LARGE

Mrs. F. S. Clough, 3253 Mayfield Avenue, San Bernardino.

Mrs. H. S. Rogers, 930 I Street, Petaluma.

Mrs. A. M. Henderson, 1600 M Street, Sacramento.

Mrs. Philip S. Doane, 855 Oak Knoll Circle, Pasadena.

DISTRICT COUNCILORS

First—Mrs. Lyell C. Kinney, Box 202, La Mesa.

Second—Mrs. John V. Barrow, 142 South Windsor Boulevard, Los Angeles.

Third—Mrs. C. P. Proudfoot, Box 817, San Luis Obispo.

Seventh—Mrs. Louis H. Dyke, 6008 Ross Street, Oakland.

Eighth—Mrs. Frederick Scatena, 1400 Forty-first Street, Sacramento.

Ninth—Mrs. W. L. Blodgett, Box 26, Calistoga.

COMPONENT COUNTY SOCIETIES

CONTRA COSTA COUNTY

The March meeting of the Contra Costa County Medical Society was held on Tuesday evening, March 8, at the Hotel Carquinez, Richmond.

The meeting was called to order at 8:35 o'clock by Dr. S. N. Weil.

Mrs. William Sargent of Oakland, president of the State Woman's Auxiliary, was introduced by Doctor Weil. Her address presented to the members of the society a comprehensive outline of the auxiliary. She told of the origin, the present size, eligibility, mode of organization, and the purposes of the auxiliary.

Dr. Keene Haldeman of San Francisco presented a paper on "The Healing of Fractures and the Fate of Bone Grafts." He gave us the benefit of his extensive experiments on fractures of rabbits. His lecture was demonstrated by lantern slides, and was greatly enjoyed. The subsequent discussion was by Dr. U. S. Abbott and by Dr. William Sargent of Oakland.

Under unfinished business, a general discussion followed on the subject of what had been accomplished with regard to securing compensation for the local hospitals in those county emergency cases which were of such serious import as to make immediate emergency care imperative before the cases could be removed to the County Hospital at Martinez. After considerable discussion Doctor Weil instructed the secretary to write Mr. James Long, county supervisor from the western end of the county, inviting him to attend our next monthly meeting, on April 12,

that the members might discuss with him possible means for a solution of this urgent need.

There were five guests present: Dr. Keene Haldeman, Dr. and Mrs. William Sargent, Mrs. J. M. McCullough, and Mrs. S. N. Weil.

Members present were: Doctors S. N. Weil, U. S. Abbott, Harry Ford, George Bumgarner, J. B. Spalding, H. L. Carpenter, L. St. John Hely, C. R. Blake, Hall Vestal, C. O. Bishop, J. W. Bumgarner, W. E. Cunningham, Kaho Daily, I. O. Church, M. C. Bolender, Margaret Keser, Rosa Powell, L. H. Fraser, J. M. McCullough, and Clara H. Spalding.

The meeting was adjourned at 10:20 o'clock by the president.

A social hour followed the program at which refreshments were served. Our meetings seem to be growing in popularity, and the spirit of good fellowship developed is apparent.

CLARA H. SPALDING, *Secretary*.



FRESNO COUNTY

The Fresno County Medical Society meeting was held at the Fresno General Hospital on March 1 at 8 p. m. This was preceded by a dinner at Hotel Fresno in honor of Dr. Frank Hinman, the speaker of the evening.

Doctor Mitchell spoke in appreciation of the services to the Fresno County Society of Doctor Crawford of Fowler, and moved that a committee be appointed to purchase Doctor Crawford a radio. Doctor Mitchell also moved to place his name on the honorary roll of the society. Motion was seconded by Doctor Tillman, and carried.

Doctors Mitchell and Scarboro were appointed a committee on purchase.

Discussion on Policeman's Fund proposition as to open panel on an industrial basis fee schedule for the police department for sickness only. Doctor Kjaerbye moved that we notify the Policeman's Fund that the society has no objections to individual members accepting their fee schedule of industrial rates for sickness. Motion was seconded by Doctor Mitchell, and carried.

Dr. R. E. Dixon of Hanford, who has discontinued active practice and is a member of the society in good standing, was placed on the honorary roll of the society.

The applications for membership of Doctors Bryson E. Cox, G. R. Howard and Ralph F. Blecker, which had been approved by the state and board of censors, were elected to membership in the society on motion of Doctor Mitchell, and seconded by Doctor Tillman.

Dr. Alfred Roscoe was granted transfer to the Stanislaus County Medical Society.

The president appointed Dr. A. E. Anderson chairman of the committee to investigate and fill out the questionnaire from the Bureau of Medical Economics. Doctor Anderson selected the following members to act on this committee with him: Doctors C. O. Mitchell, H. Ginsberg, W. L. Adams, C. M. Vanderburg, E. R. Scarboro, and E. J. Schmidt.

The clinical paper of the evening was very ably presented by Dr. Frank Hinman of San Francisco on "The Pathological and Clinical Correlation of the Medical and Surgical Lesions and Infections of the Kidneys."

ELMER J. SCHMIDT, *Secretary*.



NAPA COUNTY

The regular monthly meeting of the Napa County Medical Society was held at the Napa State Hospital in February. Members of the society and visitors were guests at dinner of Dr. T. H. Stice, superintendent of the Napa State Hospital.

An excellent dinner preceded the business meeting of the society.

The following members were present: Doctors W. L. Blodgett, R. S. Northrop, H. W. Vollmer, C. E. Nelson, C. H. Bulson, T. H. Stice, F. Heegler, D. H. Murray, A. K. McGrath, J. M. Scanland, H. Baker, I. E. Charlesworth, George J. Wood, R. S. Rood, J. B. Rogers, C. A. Johnson, B. M. Johnson, A. E. Chappel, L. Welti, and M. M. Booth.

Doctors Harold Brunn, L. L. Stanley, H. L. Bramwell, Miller, and Newman were guests of the society.

The speaker of the evening was Dr. Harold Brunn of San Francisco. Dr. Brunn gave an extremely fine talk on diagnosis and treatment of acute intestinal obstruction.

Members and visitors spent a very profitable evening, and the society expressed its thanks to the speaker and to Dr. T. H. Stice for his kind hospitality.

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The regular monthly meeting of the Napa County Medical Society was held at Cedar Gables, Napa, on March 2.

Dr. C. H. Bulson presided. The meeting was preceded by an excellent dinner.

The following members of the society were present: Doctors C. H. Bulson, H. B. Baker, C. A. Johnson, G. I. Dawson, W. L. Blodgett, F. Heegler, D. H. Murray, A. K. McGrath, R. E. Poole, R. S. Northrop, and M. M. Booth.

Guests present were: Doctors Louis Green of San Francisco; Fred O. Butler, Sonoma State Home, Eldridge; S. G. Bransford, Suisun; H. V. Clymer, Fairfield; Stuart Z. Peoples, Petaluma; John W. Green, Vallejo; and Henry S. Rodger, Councilor of Petaluma.

The speakers of the evening were: Louis Green, who gave an excellent paper on "The Diagnosis and Treatment of Eye Conditions." An excellent paper was also given by John W. Green, M. D., of Vallejo on "The Treatment of Otitis Externa and Otitis Media." Both discussions were most instructive and interesting to the members of the society and guests present.

M. M. Booth, *Secretary*.

* * *

ORANGE COUNTY

Members of the Orange County Medical Association held their regular monthly meeting on Tuesday, March 1, in the chapel of the County Hospital, with President J. L. Maroon in the chair.

A report of a special committee, composed of Drs. H. D. Newkirk, J. M. Burlew, and H. MacVicker Smith, appointed for the study of a questionnaire of the California State Medical Association in regard to activities of our County Health Department, was made. In general this committee endorsed the present work of the health officer and his department. It was moved by Doctor Raitt that the report be accepted and the committee discharged. This was seconded and unanimously passed. The secretary was instructed to forward the written report to the state secretary.

A Committee on Medical Economics was announced by the president, consisting of Doctors R. A. Cushman, D. A. Harwood, and Willis P. Baker—this committee consisting of the same members who served during the preceding year. A Medical Economic questionnaire from the American Medical Association was presented this committee with instruction for a full report at the next meeting.

A communication from the alumnae of the Orange County General Hospital Training School for Nurses was read by the secretary urging recognition and co-operation by this society.

The applications of six prospective members were given their final reading and, by ballot, all were unanimously elected to membership in this association, namely: Doctors John P. Brastad of Anaheim, Edward Lee Russell of Santa Ana, J. B. Price of Orange, Charles E. Westerhout of Brea, Lawrence C. Cameron of Santa Ana, and Erwin H. W. Kersten of Anaheim.

The scientific program of the evening was prepared and conducted by members of the Orange County Eye, Ear, Nose, and Throat Society, with Dr. H. D. Newkirk as chairman.

Dr. G. I. Sellon of Fullerton gave a most comprehensive and practical paper on "The Relation of Ophthalmology to the General Practitioner." This was discussed by Dr. C. A. Neighbors and G. Wendell Olson.

The second paper of the evening was given by Hiram M. Currey of Santa Ana on "The Etiology of Ocular and Nasal Headaches," beautifully illustrated by numerous charts and enlarged drawings showing

the anatomical relationship of the various structures causing this important condition. This paper was discussed by Dr. S. T. Johnston of Santa Ana and H. D. Newkirk of Anaheim.

HARRY G. HUFFMAN, *Secretary*.

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SACRAMENTO COUNTY

A regular meeting of the Sacramento Society for Medical Improvement was held at the Elks Temple, January 19, at 8:30 p. m. Seventy-two members were present.

The president, Nathan G. Hale, called the meeting to order.

Dr. Frank Gundrum reported an interesting case of an Italian, age twenty-five, who had suffered from irregular menses since the age of fourteen. This patient discovered that she could make her menses regular by eating raw carrots. It may be possible that this substance will regulate the menstrual cycle.

The paper of the evening was delivered by Dr. Arthur L. Bloomfield, professor of medicine at Stanford University. His subject was on the "Clinical Aspects of Gastric Secretion." Doctor Bloomfield's paper was well illustrated by charts and graphs which were projected on the screen. The important and most interesting point brought out by the paper was the fact proved by experimental evidence, that the flow, volume, and acidity in apparently normal individuals had a wide range of variability. Doctor Bloomfield outlined the use of histamin and showed its advantages over the older test-meal methods of studying gastric secretion.

Appreciation of the paper was voiced by Doctor Pulford of Woodland and by Doctors Scatena, O. F. Johnson, Gundrum, and Reardan.

The following applications for membership were read for the first time: Doctors E. C. Faulkner, J. E. Murphy, and A. D. Phillips. The transfer of Dr. H. W. Gibbons was read.

FRANK WARNE LEE, *Secretary*.

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SAN BERNARDINO COUNTY

The meeting of the San Bernardino County Medical Society was held at the County Hospital in San Bernardino on Tuesday, March 1.

The following names were voted on and accepted for membership: Doctors Donald Gidley of Ontario, and Theo. K. Miller and G. M. Webster of Patton.

Dr. Homer A. Bogue was voted on favorably for retired membership.

The program of the evening was then given:

Program by the Committee on Public Relations and Medical Economics—Social Medicine on the Continent, by Dr. Charles Whitmer of Colton; Socialization of Medicine in the United States, by Dr. Frank F. Abbott of Ontario; Economic Status of the Patient, by Dr. Walter Pritchard of San Bernardino; The Doctor's Personal Economic Situation, by Dr. Carlos G. Hilliard of Redlands.

At the conclusion of these papers the subject was opened to a general discussion.

The meeting adjourned at 10 o'clock, after which refreshments were served. There were thirty-six present.

A. T. GAGE, *Secretary Pro Tem*.

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SAN JOAQUIN COUNTY

The stated meeting of the San Joaquin County Medical Society was held Thursday evening, February 4, at 8:30 o'clock, in the Medico-Dental clubrooms at 242 North Sutter Street, Stockton. The meeting was called to order by President George H. Sanderson. The applications of S. W. R. Langdon and T. W. Kyddson for membership in this society were read and turned over to the Admissions Committee.

A letter from Mr. F. C. Haworth was read showing the financial standing of the collection agency and outlining especially the benefits which had accrued to the medical profession as a result of its activities.

The scientific program of the evening was a Symposium on Thyroid Disturbances:

Pathologic Classification—Dr. E. M. Bartlett.

Medical Care of the Thyrotoxic Patient—Dr. Wm. J. Kerr.

Surgical Indications—Dr. H. H. Searls.

Radiologic Treatment—Dr. R. S. Stone.

Doctor Bartlett classified tumors of the thyroid into four main groups:

1. Simple hypertrophy.
2. Colloid goiter.
3. Adenoma (toxic and nontoxic).
4. Hyperplasia (exophthalmic type): Inflammations—Acute, chronic.

Most of these types were illustrated by microscopic slides and gross pathological specimens in cross-section.

Doctor Kerr spoke of endemic goiter as being confined mostly to the mountainous regions of California, where the water supply is relatively free from iodine. He said that the treatment of a mother with a small amount of iodine during her pregnancy would prevent the occurrence of the disease in her child. Ordinary goiter in childhood may later become adenomatous and then carcinomatous. The exophthalmic type is probably a different pathologic condition and comparatively rare.

Goiter is about as common in San Francisco and the surrounding country as anywhere else. It is best controlled by giving an adequate amount of iodine in the food and water supply. Colloid goiter is best treated by administering thyroid extract.

The toxic goiter is due to adenoma of the thyroid, a hyperplastic gland sometimes regarded as a true thyroiditis. At first the adenoma did not show the eye signs, but with the advent of iodine therapy the appearance of the adenoma is masked until the symptoms of the exophthalmic type appears.

Hypertrophy of the gland causes the appearance of many grave signs such as the rapid heart with murmurs and other signs; profuse sweating and tremors.

In treatment of this type it is necessary to determine the amount of iodine required. This may be one drop of Lugol's daily or less often. X-ray and radium are of value alone or in various combinations with iodine treatment. Some cases get well with any treatment; others fail or recur, no matter what is used.

In speaking of treatment by radium and x-ray, Doctor Stone said that we are still far from a solution of the problem. It is necessary to rid the gland of the hyperfunction cells. Medicine reduces the secretion, radiation atrophies the cell or destroys it by necrosis. The hyperfunctioning case yields the best results from this treatment. The patient must cooperate by proper regime of rest and light work; no excitement. The results of radiation do not show under two to six weeks. Treatment is begun with small initial dose (25 per cent of an erythema dose), applied to one lobe at a time in succession. Fifty to sixty per cent of the patients are cured and another 35 per cent markedly improved.

Doctor Searls believes that the two types of goiter are but stages in the same disease and that it may progress from one to the other. He feels that surgical removal is a short cut to cure. Recurrence is to be controlled by x-ray rather than surgery.

Development of serious heart symptoms—auricular fibrillation, dilatation, and hypertrophy—in the course of an adenoma demands surgical removal without delay. Adenoma is a precancerous condition sufficient in itself to warrant surgical removal.

Preservation work on parathyroids has revealed some interesting facts. By the old type of operation one was removed in every three operations. These were usually taken out with the lateral capsule. By improved technique this part is now preserved, so by actual count only three were removed in forty-three. The paper was discussed, and many questions asked by Doctors Barnes, Kanner, Sheldon, McCoskey, Sanderson, and Chapman.

There being no further business the meeting was adjourned and refreshments served.

C. A. BROADUS, *Secretary*.



SANTA BARBARA COUNTY

The regular meeting of the Santa Barbara County Medical Society was held at the Cottage Hospital on

Monday evening, March 14, with President Koefod in the chair.

The president then introduced Dr. William J. Kerr, professor of medicine at the University of California Medical School, San Francisco. Doctor Kerr prefaced his talk by an invitation to the society to attend the meeting of the American College of Physicians, April 4-8 inclusive, at San Francisco. He then gave a most interesting and instructive talk of "Disturbances in the Peripheral Vascular Circulation," discussing particularly the prognosis and treatment of essential hypertension, arteriosclerosis, endarteritis obliterans, Raynaud's disease, and many others. The paper was discussed by Doctors Means, Brown, Stevens, Wilcox, Sansum, Evans, Nuzum, and Koefod.

Doctor Brown then followed with a paper on "City and County Health Amalgamation." Immediately following, Doctor Sansum introduced the following resolution, which was seconded:

"The Santa Barbara County Medical Society considers the merger of the health activities of the county under the direction of a full-time public health administrator as a constructive measure in the development of Santa Barbara County. The merger is urged upon the Board of Supervisors, the City Council, and the City Board of Education in accordance with plans of unification which have proved efficient in the best interests of the people in various sections of this country."

The resolution was then discussed by Drs. Means, Markthaler, Ullmann, Lamb, Foard, and Freidell. Doctor Freidell moved that the resolution be tabled. This was seconded, and carried 34 to 4.

It was then moved, seconded, and carried that the matter of county and city amalgamation be referred to the Public Relations Committee and that it present its recommendations at the next meeting.

W. H. EATON, *Secretary*.



SANTA CLARA COUNTY

The regular February meeting of the Santa Clara County Medical Society was held at the Santa Clara County Hospital, with about seventy members in attendance. The members of the society were guests of the staff of the Santa Clara County Hospital. After a splendid dinner had been served in the new service wing of the hospital, the meeting was called to order by President Fagerstrom.

The applications for membership of the following doctors were read and referred to the Admissions Committee: George D. Barnett (transfer from San Francisco society); Roland G. Breuer, Isidor E. Le Duc, and J. B. Josephson, San Jose; I. J. Hopkins, Mountain View.

The following physicians, having been favorably recommended by the Admissions Committee, were elected into the society: Dan Brodovsky, Santa Clara County Hospital; Herbert A. Cilley, Irving Cassell, and Paul T. Martin, San Jose; Honora McCarty, Agnew; C. E. Shepard, Stanford University; R. W. Wright, Palo Alto.

The matter of the listing of an individual without an M. D. degree under the heading of "Physicians and Surgeons, M. D." in the classified list of the local telephone company was brought to the attention of the members, and the necessity of a legislative enactment to protect the M. D. degree was emphasized by Doctor Fagerstrom. It was moved by Dr. John H. Shepard, and unanimously carried, that the society, through its secretary, request the local telephone company office to list the members of the Santa Clara County Medical Society under a separate classification with the caption "Physicians and Surgeons, Members of the Santa Clara County Medical Society" in the classified list of the San Jose Telephone Directory.

The following members were nominated as delegates to the state convention, to serve for two years; E. M. Miller, C. M. Burchfiel, E. P. Cook, C. K. Canelo.

Doctors Burchfiel and Cook were elected as delegates. Dr. E. M. Miller was nominated as the alternate delegate, and the secretary was instructed to cast an unanimous ballot in his favor.

Dr. Charles Dukes of Oakland presented the work of the California State Cancer Committee in an illustrated address. The remainder of the program was in charge of Dr. D. R. Wilson, superintendent of the Santa Clara County Hospital, who welcomed the society and introduced members of the Santa Clara County Hospital staff who presented papers as follows:

The Treatment of Secondary Anemia—G. Gray.

Surgical Aspects of Cardiology—Louis M. Rose.

A Case of Myxedema—C. Kelly Canelo.

Presentation of Cases of Varicose Veins Treated by the Injection Method—Charles Fernish.

The Pathology of Sudden Death—Frederick Prosch.

Treatment of Diabetic Ulcers by Topical Application of Insulin—E. O. G. Schmitt.

The president expressed the members' appreciation of the hospitality of the Santa Clara County Hospital.

LUCAS W. EMPEY, *Secretary*.



SISKIYOU COUNTY

The Siskiyou County Medical Society met at the Yreka Inn Sunday afternoon, March 7. The members present were: Doctors Dickenson, Runckel, Newton, Seeley, Langer, Rea, Pius, McBride, Ruth Hart, V. W. Hart, and W. E. Hart.

Doctor Runckel was appointed delegate and Doctor Langer alternate to the state medical meeting at Pasadena.

The guest speaker was Dr. Dudley Smith of San Francisco. He talked to the society on "Cancer of the Rectum," outlining his methods of diagnosis, surgical technique, and after-care. He particularly emphasized the care needed to form a proper colostomy opening. He described, with the aid of lantern slides, an improved colostomy belt devised by one of his patients which has eliminated many of the disagreeable features of colostomies. Doctor Smith brought his kit of proctoscopic instruments and gave many practical suggestions upon their use in rectal work.

Mrs. McBride entertained the wives of the members at bridge during the meeting, after which they joined the members at a dinner at the Inn.

W. E. HART, *Secretary*.



STANISLAUS COUNTY

The regular monthly meeting of the Stanislaus County Medical Society was held on March 11. Five members from the Merced County Medical Society were guests at this meeting. Thirty-three doctors were present.

Dr. E. F. Reamer, county health physician, presented an outline of the policy of the Stanislaus County Board of Health. It was moved, seconded, and carried that the Stanislaus County Medical Society accept and endorse this policy.

Dr. Edward Chouret presented a case of leprosy.

Members of the California Medical Association Cancer Commission presented very interesting illustrated lectures as follows:

Diagnosis and Surgical Treatment of Bone Tumors—A. R. Kilgore.

Pathology of Bone Tumors—E. E. Bolin.

X-Ray Diagnosis and Treatment of Bone Tumors—Howard Ruggles.

A motion by Dr. E. R. McPheeters was seconded and carried that the speakers of the evening be given a vote of thanks for their very excellent lectures.

DONALD L. ROBERTSON, *Secretary*.



TULARE COUNTY

The regular monthly meeting of the Tulare County Medical Society was held Wednesday, January 27, in Visalia.

Dinner was served at 7 p. m., and the meeting was called to order by Dr. H. G. Campbell, president.

The application of Dr. Philip S. Barber of Porterville for membership in the society was favorably acted upon.

Election of officers for the ensuing year were held and the following members were elected: S. S. Gins-

burg of Visalia, president; E. C. Bond of Hanford, vice-president; Karl F. Weiss of Visalia, secretary-treasurer; J. Hicks of Tulare, censor; H. G. Campbell of Lindsay, delegate; S. S. Ginsburg of Visalia, alternate.

Dr. Platt V. Covington addressed the gathering. He advocated the establishment of a full-time county health department by Tulare County and pointed out the feasibility of such a program and told of the financial aid available from the Rockefeller Foundation for this work. This proposal is to be submitted to the Tulare County Board of Supervisors on March 2.

Doctor Tellfer of the State Department of Health and Dr. A. W. Preston, Tulare County health officer, opened the discussion that followed.

It was suggested that a representative body of the medical society meet with the supervisors at the time appointed for the hearing of the proposal for establishment of a full-time health department.

It was further moved by Doctor Hill that the medical society go on record as heartily endorsing the principles embodied in the proposal for a full-time county health unit; that the qualifications for appointment of a full-time health officer in such a unit shall meet with the approval of a committee appointed by the county medical society; and that this committee also act with the Tulare County Board of Supervisors in an advisory capacity in matters pertaining to the activities of such full-time health officer. The motion was duly seconded by Doctor Fowler and unanimously carried.

The following members and guests were present: Doctors Banks, Betts, E. C. Bond, Annie Bond, Campbell, Fowler, Ginsburg, Guido, Hicks, Hill, Kohn, Lipson, Preston, Seligman, Weiss, Zumwalt, Doctor Zuckermann of Chicago, Doctor Tellfer and Mr. Stanford of Visalia, Dr. P. V. Covington of Salt Lake, and Mr. Walter Haight of Visalia.



One of the best attended meetings of recent months was held by the Tulare County Medical Society on February 28, preceded by dinner at Motley's Café, in Visalia.

President-elect Dr. S. S. Ginsburg called the meeting to order. Doctors Preston, Zeller, Ginsburg, and Weiss were appointed to attend and report on the supervisors meeting as regards the proposed establishment of a Tulare County health unit.

Doctor DeLappe, district councilor of the California Medical Association, brought to our attention the advisability of appointing a membership committee to increase our membership to fifty, thus entitling us to two delegates instead of one, as is now the case. The State Medical Library packet service was also told of, and the question of acceptance of pay patients by a county hospital was discussed.

The educational program of the evening was devoted to a discussion of cancer diagnosis and treatment through the courtesy of the Cancer Commission of the California Medical Association. Dr. Charles A. Dukes, chairman, spoke first of the aims of the Commission and then turned the meeting over to the following doctors, who spoke on: Pathology of Breast Cancer, by Z. E. Bolin; Radiotherapy of Breast Cancer, by R. S. Stone; Physical Diagnosis and Surgery of Breast Cancer, by A. R. Kilgore.

The talks were illustrated by means of lantern slides and led to much interesting discussion, and a unanimous vote of appreciation was extended the speakers.

Doctor Scarborough of Fresno, who was in attendance, extended an invitation to attend the Fresno County Society meetings.

In addition to this program we also had the opportunity of viewing a Petrolagar scientific medical motion picture with sound, on "Repair of Urethrocele, Cystocele, and Lacerations of the Cervix."

The meeting was attended by the following members and guests: Doctors Banks, Bowen, Zeller, Furness, Preston, Fuller, Betts, Hicks, Ginsburg, Weiss, Austin Miller, McClure, Campbell, Gilbert, Fowler, Annie Bond, Nicholson, Barber, Brigham, Kohn,

Zumwalt, Parkinson, Mr. Stanford of Visalia, Doctor Scarbrough of Fresno, and the guest speakers of the evening.

Doctor Melvin of Springville invited the society to meet at Springville for the April meeting.

KARL F. WEISS, *Secretary*.

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VENTURA COUNTY

The February meeting of the Ventura County Medical Society was held in the clinic building of the Ventura County Hospital on February 9 at 8 p. m., Dr. W. S. Clark presiding.

Members present were: Doctors Smolt, Bianchi, Shore, W. S. Clark, Achenbach, Armitstead, Bardill, Foskett, and Little. The guest of the evening was Dr. William Daniel of Los Angeles.

The following communications were read: Questionnaire referred to Committee on Public Relations; Dr. Lillian Smolts' application for membership, which was referred to secretary; and Doctors Bardill and Mosher's advertising cards. These were approved.

Doctor Shore introduced Doctor Daniel, who gave an illustrated lecture on rectal diseases.

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The March meeting of the Ventura County Medical Society was held in the clinic building of the Ventura County Hospital on March 9 at 8 p. m., Dr. W. S. Clark presiding.

Members present were: Doctors Bianchi, Felberbaum, Hendricks, W. S. Clark, Strong, Kendall, Jones, Homer, Armitstead, Little, Smolt, King, and Bardill.

A questionnaire from the American Medical Association regarding different economical phases of practice within the county was referred to Doctor Achenbach, chairman of Committee on Legislation.

No old business was brought before the society.

Financing of the Safety Campaign, being sponsored by one of the Ventura papers, was not approved by the society.

The Metz film regarding spinal anesthesia technique and physiology was shown, and proved every interesting.

Doctor Hendricks was appointed program chairman for the April meeting. ARTEMAS STRONG, *Secretary*.

CHANGES IN MEMBERSHIP

New Members

Alameda County—George V. Cochran, Leonard Eugene Skilling, Samuel William Yabroff.

Contra Costa County—Selby Harold Marks.

Fresno County—H. G. Adams, J. C. Allen, Ralph F. Blecker, Florence Amelia Brown, Bryson E. Cox, Hyman Milton Ginsburg, George R. Hashiba, Gordon Randolph Howard, Clayton I. Pendergrass.

Imperial County—Warren F. Fox, John Huntington Hutton.

Los Angeles County—

Arthur Bowen
Kenneth Harold Boyer
F. H. Coeur-Barron
Arthur E. Coyne
Edwin M. Duvall
Albert Adolph Ehrke
Henry G. Hadley
Thomas Hudson Harter
Ida Heissig
M. George Henry
Elsi Collins Innis

Newell Jones
John McKibbin
Clarence Wilmot Olsen
Roland Harris Osborne
Sam F. Perkins
Clyde L. Smith
Ian Davis Tiedemann
Lyman Brian Vaughan
John Madden Wright
Frank Booth Young

Mendocino County—Rudolph B. Toller.

Merced County—Paul A. Lum.

Orange County—John P. Brastad, Lawrence C. Cameron, Erwin H. W. Kersten, J. B. Melville Price, Edward Lee Russell, Charles E. Westerhout.

Riverside County—Benjamin Edward Garrison, Robert William Hartwell, Wayne King Templeton.

Sacramento County—Albert D. Phillips.

San Bernardino County—Leonard W. Atkinson, Arthur R. George, Edwin Bruce Godfrey, Lester Lonergan, Theodore K. Miller, Virgil Milo Pinkley, Albert H. Reiswig.

San Diego County—George Burch Mehlin.

San Francisco County—

Piero Albi
Frederic C. Bost
Robert Tilford Boyd
Dewitt K. Burnham
William Adrian Carroll
Salvatore Cieri
Charles E. French
Morton R. Gibbons, Jr.
Paul A. Gliebe
Ellis D. Harmon
George John Heppner
Carl Edward Horn
John A. Lenahan
James Joseph McGinnis

San Luis Obispo—J. M. Marshall.

San Mateo County—Eberhard Sogemier, Raymond Jacob Reitzel.

Santa Clara County—Dan Brodovsky, Irving Cassell, Herbert Arthur Cilley, Honora McCarty.

Shasta County—Clarence C. Gerrard.

Siskiyou County—Leslie J. Seeley.

Sonoma County—Kathleen G. Morris.

Stanislaus County—Alfred M. Roscoe, Evelyn Mayman.

Tulare County—Philip Schuyler Barber.

Yolo-Colusa-Glenn County—Donald McNeil.

Transfers

Roy A. Cummings, from Orange to Los Angeles County.

Winfred E. Hart, from Imperial to Siskiyou County.

Otto L. Munch, from Santa Barbara to San Luis Obispo County.

Paul R. Noetling, from Tuolumne to San Joaquin County.

John Paul Sweeney, from Tuolumne to San Mateo County.

Benjamin F. Walker, from San Joaquin to Fresno County.

John Asher Wallace, from San Bernardino to Orange County.

James A. Warburton, from Sacramento to San Mateo County.

In Memoriam

Atkinson, Leonard Woods. Died at Patton, February 27, 1932, age 73 years. Graduate of Boston University School of Medicine, Boston, 1884. Licensed in California, 1901. Doctor Atkinson was a member of the San Bernardino County Medical Society, the California Medical Association, and the American Medical Association.

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Cothran, Abraham Lincoln. Died at San Jose, February 23, 1932, age 67 years. Graduate of the University of California Medical School, San Francisco, 1893. Licensed in California, 1894. Doctor Cothran was a member of the Santa Clara County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

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Craycroft, Harry Judge. Died in March, 1932, age 55 years. Graduate of Cooper Medical College, San Francisco, 1904. Licensed in California, 1904. Doctor Craycroft was a member of the Fresno County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

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Durney, Charles Paul. Died March 20, 1932, age 46 years. Graduate of Georgetown University School of Medicine, Washington, 1909. Licensed in California, 1925. Doctor Durney was a member of the Santa Clara County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

Gerlach, August Alison. Died in Oakland, March 15, 1932, age 34 years. Graduate of the University of California Medical School, San Francisco, 1929. Licensed in California, 1929. Doctor Gerlach was a member of the Alameda County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

OBITUARIES



Leonard Woods Atkinson
1859-1932

Dr. Leonard Woods Atkinson leaves many friends in San Bernardino, Patton, Riverside, Highland, and the surrounding territory who will miss his sympathetic interest in humanity. He passed away, after a brief illness, on Saturday, February 27.

Doctor Atkinson came to this community about one and a half years ago. Always interested in the public health movement, he identified himself in the health work in the various communities in which he practiced. He was deputy health officer of San Bernardino County previous to engaging in private practice in Highland recently.

Doctor Atkinson was born December 12, 1859, in the old homestead on Appian Way, adjoining Harvard University, from which his father and his brothers graduated. He was the son of Kinsman Atkinson and grandson of Leonard Woods, president of Andover Theological Seminary. Doctor Atkinson was educated in the Cambridge schools, and on June 7, 1884, was graduated from Boston University School of Medicine.

On July 4, 1884, he married Isabel Snow, daughter of Hon. Edwin Snow of Snowville, New Hampshire, and sister of Judge Leslie P. Snow of Rochester. To them were born seven children, of whom two, Leonard Woods, Jr., and Helena, died in childhood. Surviving are his daughters, Mrs. Frank William Jackson of Cleveland, Ohio; Mrs. Paul Kress, Richardson, Salt Lake City, Utah; and Mrs. Benjamin Franklin Scribner, Berkeley, California; and his sons, Kenneth Kinsman and Roger Wolcott Atkinson, and eight grandchildren. On September 12, 1930, at the home of his daughter in Berkeley, he married Dr. Pearl Suvilla Waters, a member of the staff of the Patton State Hospital since December 1, 1920.

During his medical career, which extended over a period of forty-eight years, Doctor Atkinson specialized in surgery and obstetrics, taking postgraduate work at the Metropolitan and Allied hospitals of New York City. He served as surgeon for the Pacific Electric Railway Company and the Pacific Mail and Steamship Company and was superintendent of the Alaska Packers' Hospital in Alaska. In the World War he held the rank of Captain in the Medical Reserve Corps.

Joseph Wright Cook
1883-1932

We call attention, with deepest regret, to the untimely passing of a former fellow practitioner, Dr.

Joseph Wright Cook, formerly of Banning, late of Hamadan, Persia, where he was serving his second five-year term as medical missionary under the Presbyterian Board. His death was due to typhus fever, contracted in connection with his work in outlying villages.

While in Red Cross work in Asia during the World War, he developed pulmonary tuberculosis for which he came to Redlands, then to Banning. He made a prompt and complete recovery, practiced at Banning from 1920 to 1929, when he returned, with his family, to Persia to resume the work that drew him irresistibly and for which he was so very well qualified.

Shortly before he left Banning he replied to a remonstrating friend: "If I knew that I had only one year to live I should want to spend it in Persia."

Those of us who were so fortunate as to have contact with Doctor Cook came to realize his remarkable capacity for understanding his patients' ills, physical, mental and spiritual, and his equally remarkable skill in ministering to these varied ills.

Doctor Cook exemplified strikingly in himself the profound truth of that saying of the Great Teacher: "He that findeth his life shall lose it; he that loseth his life for my sake shall find it." Giving himself in the service of needy humanity he enjoyed the abundant life that the Christ that he loved and talked about and served gives to those that dare to throw away the lesser for the greater good.

Doctor Cook possessed in an unusual degree the many-sidedness so necessary to the really adequate practice of medicine.

His memory is a benediction and an inspiration to those fortunate to have known him.

A. L. BRAMKAMP, M. D.

NEVADA STATE MEDICAL ASSOCIATION

A. C. OLMSTED, Wells.....	President
O. HOVENDEN, McGill.....	President-Elect
J. H. HASTINGS, Pioche.....	First Vice-President
E. E. HAMER, Carson City.....	Second Vice-President
HORACE J. BROWN, Reno.....	Secretary

COMPONENT COUNTY SOCIETIES

WASHOE COUNTY

The Washoe County Medical Society met in the State Building on the evening of March 8, with Dr. John J. Sullivan presiding.

The application of Dr. J. M. Reynolds for membership in the society was read and approved. Doctor Reynold's application was by transfer from the Tulsa County Medical Society, Tulsa, Oklahoma, and was in regular form.

Doctor Caples presented a copy of the New York *Medical Week*, with a brief article, "Unrestricted Medical Liquor," referring to the work by Senator Copeland of New York, who himself is a physician. Senator Copeland, working in connection with the American Medical Association and various state and medical societies, is endeavoring to have Congress remove the limit from physicians' prescriptions in both quantity and frequency. After brief discussion, the secretary was instructed to send a night wire to Nevada's congressional representatives to coöperate with Senator Copeland in his particular effort; and the secretary was further instructed to write the Judiciary Committees in both House and Senate to the same effect. Same was immediately done.

Next in order came the reading of the five resolutions introduced at the last meeting and ordered printed and copies mailed each member. Resolutions were introduced by Dr. George L. Servoss, chairman of the Board of Censors. They embraced a variety of subjects, from reduction of dues to limiting the secretary to postcards in his monthly notices. As they were read in their order, the resolutions were promptly voted down. Seemingly the society, which

had shown a healthy growth and had done considerable progressive work besides having a very decent sum of money in the treasury, was quite content to let the affairs of the society remain as they were.

The scientific program of the evening consisted of one paper, and that by Dr. Edward Records, D. V. S., department of veterinary science, University of Nevada. Doctor Records' paper was "The History of Rabies in Nevada." The paper was full of scientific data. Only excerpts are here given, the paper having been sent by the secretary for publication in *CALIFORNIA AND WESTERN MEDICINE*.

"So far as is known, rabies was not known in the far West until 1909, at which time it made its appearance in southern California, where it had been introduced from the East. No effective steps were taken to eradicate it and the disease spread northward through California into Oregon in 1912. Later the disease appeared in Idaho, Nevada, and Utah. It entered Nevada in 1915, invading the state by three routes, the first appearance being in Humboldt County in 1915. Later invasions came from northern California, and through the medium of wild animals it soon was found in every county in Nevada. The introduction of rabies into Nevada was a most serious calamity, endangering not only human life, but contributing to great financial loss of livestock and also entailing a financial cost for extermination of predatory animals and rodents that seems unbelievable. From 1915 to 1931, 99,183 such animals as bobcat, coyote, lion, badger, fox, mink, otter, porcupine, raccoon, skunk, weasel, beaver, housecat, civet, and muskrats were actually accounted for; in addition, it was estimated one-fourth of the above number were poisoned but not found. The financial cost to the national and state governments was well over three-quarters of a million dollars.

"The number of animals examined in the sixteen years above mentioned was 1085. Of that number, 583 were positive for rabies, 423 negative, and 79 rejected.

"From 1915 to and including 1920 the Nevada State Veterinary Department treated 186 persons for rabies infection, positive or suspected. From 1920 up to 1932 the treatment of all cases was done by the family physician.

"But it is fair to estimate that at least 150 additional humans have received treatment in the last eleven years. No deaths have been recorded from the 336 cases treated. There were two deaths from rabies recorded, one of a child in the dead of winter in northern Nevada whose case was not diagnosed until too late for antirabies treatment; the other a man bitten in Nevada, but who left, going to California when rabies developed with fatal results.

"Prevention centers upon compulsory antirabies vaccination of domestic dogs. Until this is done, rabies will continue to be a dreaded evil."

Doctor Records' paper was greatly appreciated by the society.

The president appointed a health committee, consisting of Doctors Paradis, Dwight Hood, and M. A. Robison.

THOMAS W. BATH, *Secretary*.

UTAH STATE MEDICAL ASSOCIATION

R. A. PEARSE, Brigham City.....President
F. M. McHUGH, Salt Lake City.....President-Elect
L. R. COWANS, Salt Lake City.....Secretary
J. U. GIESY, Kearns Building, Salt Lake City
.....Associate Editor for Utah

COMPONENT COUNTY SOCIETIES

SALT LAKE COUNTY

A regular meeting of the Salt Lake County Medical Society was held Monday evening, February 22, at the Newhouse Hotel. The meeting was called to order by the president at 8:05 o'clock. There were forty-nine member and ten guests present.

The meeting was addressed by Mr. Watkins of Chicago, on the drive for the Community Chest.

Dr. Kendall Emerson, managing director of the National Tuberculosis Association and executive secretary of the American Public Health Association, spoke on the general purposes of the National Tuberculosis Association. He then introduced Dr. H. E. Kleinschmidt, who presented a most interesting discussion of the life and work of Robert Koch.

Dr. Iago Galdston of the New York Academy of Medicine gave a paper on "The Life History of Tuberculosis and Means of Its Prevention."

Dr. F. F. Hatch, with the consent of the seconder, Sol Kahn, withdrew his tabled motion of the meeting one month ago to refuse payment of dues to the state association until they rescind the increased dues. Doctor Hatch moved that the Salt Lake County Medical Society instruct its delegates to ask for a special meeting of the House of Delegates of the state association and at that meeting moved to rescind said raise in dues. This was seconded by Dr. J. P. Kerby.

After discussion the motion was passed, with two dissenting votes.

L. E. VIKO, *Secretary*.



WEBER COUNTY

The regular meeting of the Weber County Medical Society was held February 18.

E. P. Mills, M. D., chairman of the Medical Division of the Community Service, reported an expenditure of \$644.46 for drugs and hospital fees since January 1.

Fred Stauffer, M. D., of Salt Lake City discussed the building and financing of the Medical Arts Building in Salt Lake.

It was decided by the society to use sufficient money from the educational fund to pay for the expense of the postgraduate work in connection with the state medical meeting, which will be held at Ogden this year, and extend an invitation to all members of the society to participate in this work gratis.

The matter of a Medical Arts Building for our society is to be considered at our next meeting.

WILLIAM M. MCKAY, *Secretary*.

UTAH NEWS

Doctor Viko Becomes Health Director.—Despite the economies necessitated by a decreased budget, no activity of the city board of health will be dispensed with, Dr. L. E. Viko said as he took over his duties as city health commissioner, succeeding Dr. Willard Christopherson.

"Oddly enough, the outstanding health problem in Salt Lake today is one that must be handled by various social agencies and not the board of health—that of nutrition," Doctor Viko said. "There are no major epidemics in the city."

The new commissioner paid Dr. Christopherson high praise for the excellent condition in which he left the department.

Officials who took up their new duties at the same time as Doctor Viko include Dr. Henry Raile, assistant health commissioner; Dr. Lawrence Snow, epidemiologist; Dr. L. A. Brown, in charge of the meat and foods division; Newell W. Pickett, sanitary inspector; J. R. Stanton, quarantine inspector; and George A. Goff, superintendent of weights and measures.

Dr. Walter Felt will continue to have charge of the baby clinic, Doctor Viko announced.

IN MEMORIAM

Bascom, Francis Sanborn. Died at Carmel, February 26, 1932, age 75 years. Graduate of Rush Medical College, Chicago, 1882. Licensed to practice, 1893. Doctor Bascom was a member of the Salt Lake County Medical Society, the Utah State Medical Association, and a Fellow of the American Medical Association.

MISCELLANY

Under this department are ordinarily grouped: News; Medical Economics; Correspondence; Twenty-five Years Ago column; Department of Public Health; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the twentieth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

NEWS

Coming Meetings—

American Medical Association, New Orleans, Louisiana, May 9-13, 1932, Olin West, M. D., 535 North Dearborn Street, Chicago, Illinois, secretary.

California Medical Association, Hotel Huntington, Pasadena, May 2-5, 1932, Emma W. Pope, M. D., Room 2004, 450 Sutter Street, San Francisco, secretary.

American College of Physicians, San Francisco, California, April 4-8, 1932, William J. Kerr, University of California Medical School, Fourth and Parnassus avenues, San Francisco, general chairman.

American Proctologic Society, Memphis, May 6 and 7, Curtice Rosser, M. D., 710 Medical Arts Building, Dallas, Texas, secretary.

American Society of Clinical Pathologists, New Orleans, May 6-9, A. S. Giodano, 531 North Main Street, South Bend, Ind., secretary.

Arizona State Medical Association, Globe, April 21-23, D. F. Harbridge, M. D., 407 Goodrich Building, Phoenix, secretary.

Pacific Northwest Medical Association, Spokane, Washington, June 27-29, 1932, C. W. Countryman, 280 Paulsen, Medical-Dental Building, Spokane, Washington.

Southern California Medical Association, Samarkand Hotel, Santa Barbara, April 15 and 16, 1932, Carl R. Howson, M. D., 711 Merritt Building, Los Angeles, secretary.

Eighty-Sixth Semiannual Meeting of Southern California Medical Society.—The plans for the eighty-sixth semiannual meeting of the Southern California Medical Association call for an excellent scientific program. In addition to papers from Southern California members, there will be guest speakers of national reputation: Dr. William Darrach, professor emeritus of surgery at Columbia University; Dr. Allen Kanavel, professor of surgery, Northwestern University Medical School; Dr. Louis Faugeres Bishop, internationally known authority on heart disease; Dr. George B. Eusterman, gastro-enterologist from the Mayo Clinic, and others.

The meetings are to be held at the Samarkand Hotel in Santa Barbara on April 15 and 16. Special arrangements are being made for entertainment of the ladies. A golf tournament and banquet are being planned by the hotel. All members of the California Medical Association are invited to attend the meetings.

Governor James Rolph Names John Gallwey, M. D., to U. C. Board.—An International News Service item reads as follows: Two appointments to the board of regents of the University of California were announced by Governor James Rolph, Jr. One of them, Dr. John Gallwey, San Francisco, was named to succeed Alden Anderson, Sacramento, term expired. Doctor Gallwey graduated from the University of California in 1885 and is a native Californian. Both appointments were for sixteen-year terms.

Research Grant Awarded.—Dr. Clinton H. Thienes, of the University of Southern California School of Medicine, has received a grant of \$400 from the Committee on Scientific Research of the American Medical Association for the continuation of his work on the intrinsic nervous system of the intestine.

Health Day for American Child Set by Hoover.—Seeking a wider opportunity for the physical and mental development of American children, President Hoover today issued an official proclamation setting aside May 1, 1932, as child health day. The proclamation invited "all agencies and organizations interested in child welfare to unite on that day in the observance of such exercises as will awaken the people of the nation to the fundamental necessity of unremitting effort for the protection and development of the health of the nation's children."

Summer Postgraduate Courses.—The University of California Medical School will offer summer courses for graduates in medicine from the 6th to the 18th of June, 1932.

Several clinical branches will be given in the morning and afternoon courses. The following subjects are offered: general medicine, general surgery, ophthalmology, otorhinolaryngology, genito-urinary diseases, pediatrics, circulatory diseases, diseases of the blood forming organs, diseases of the endocrine glands, including diabetes, and diseases of the gastrointestinal tract, laboratory diagnosis, pathology, and operative technique.

In addition to the regular courses, there will be symposia of the Departments of Medicine and Surgery at 9 on Wednesday mornings, daily noon lectures and clinicopathological conferences and round table discussions on various subjects on three evenings each week. The symposia, lectures, conferences and round table discussions will be open to the medical public without charge.

The announcement of courses will be ready about May 1, 1932, and will be mailed on request. Please address: The Dean's Office, University of California Medical School, Parnassus and Third avenues, San Francisco, attention of Dr. J. Homer Woolsey.

Annual Dinner of California Medical Alumni.—The annual dinner of the Medical Alumni Association of the University of California for the graduating class will be held at the Palace Hotel, San Francisco, April 30, 1932, at 7 p. m. President Robert T. Legge has obtained Regent Chester H. Rowell as the principal speaker and Mr. Luther A. Nichols, comptroller of the university, Dean Langley Porter of the Medical School and William A. Ingram, to speak on affairs in their respective fields. Reservations may be made through Dr. William L. Bender, secretary-treasurer, 384 Post Street, San Francisco.

Koch Exhibit.—In celebration of the fiftieth anniversary of the announcement of the discovery of the tubercle bacillus and of the etiology of tuberculosis, by Robert Koch of Berlin, on March 24, 1882, a special exhibit has been arranged in the library of the University of California Medical School. A feature of the exhibit is a photograph of Koch surrounded by a group of pupils from all over the world, in which may be noted two physicians, Doctors Sanderson and Rosencrantz of San Francisco.

The Oakland Urological Club.—On February 3, 1932, the Oakland Urological Club was organized and the time and place of the first meeting was set for Wednesday, March 16, 1932, at 6:30 p. m., at Peralta Hospital. The following program was presented: Anuria, Postmortem Report with Presentation of

Specimens, by T. I. Buckley, M. D.; Postmortem Findings After Ureteral Transplantation, by W. W. Cross, M. D.; Case Report of Ureteral Obstruction and Nephrectomy, by J. A. Daugherty, M. D., and Recurrent Adenoma of the Prostate, by A. E. Dart, M. D.

Conference of Social Work—Health Section Programs.—The health section of the 24th annual meeting of the California Conference of Social Work to be held in Riverside May 1 to 5, will have many points of interest to the medical delegates. Zdenka Buben, chief medical social worker of the Los Angeles Health Department, is chairman of the section.

Of special interest will be a joint luncheon meeting of the cancer committee of the California Conference and that of the cancer commission of the California Medical Association. Members of the California district of the American Association of Hospital Social Workers will participate.

The subject of the luncheon will be "Social Service as a Factor in the Solution of the Cancer Problem." Dr. Walter M. Dickie, director of the department of public relations of the California Medical Association, will preside and the principal speaker will be Dr. Robert B. Greenough, assistant professor of surgery at Harvard University and chairman of the Cancer Committee of the American College of Surgeons.

CORRESPONDENCE

Subject of Following Letter: A Communication From the Secretary-General of the Cuban Medical Federation, Regarding Discussion of Cuban Health Societies in February California and Western Medicine.

Editor's Note: In the February CALIFORNIA AND WESTERN MEDICINE, pages 116 and 139, was printed a discussion of "Health Insurance Societies of Cuba—Pseudo State Medicine and With a Vengeance." A copy of CALIFORNIA AND WESTERN MEDICINE was sent to the Cuban Medical Federation. A reply has been received from the Secretary-General of that federation. It is here reprinted because it indicates that the statements made in the February CALIFORNIA AND WESTERN MEDICINE are approved by the executive body of the Cuban Medical Federation. The letter of Dr. Felix Hurtado, secretary-general, follows:

Federacion Medica de Cuba

Havana, March 5, 1932.

To the Editor.—It gives me exceeding pleasure to acknowledge your cordial letter of February 10 and to express, above all, our appreciation of your friendly attentions.

We have read with delight the text of the article in the February issue of California and Western Medicine, and are glad at this opportunity to congratulate you on your admirable discussion in your editorial of the actual situation in which Cuban physicians and our health insurance societies find themselves, and I am eager to inform you that in the very next issue of our official organ, *La Tribuna Medica*, we will publish your interesting article.

Now with regard to having a delegate of this Federation present at the next congress of the American Medical Association that convenes at New Orleans in May of the present year, permit me to inform you that this project is receiving the study and every consideration of the Executive Committee of our Federation; and I can tell you even now that we shall gladly appoint a member to be present at the aforesaid congress in the capacity of guest or fraternal delegate with the previous consent of Dr. Olin West, with whom you suggest we enter into correspondence touching this particular.

If we did not fear to impose on your generosity too much we should request of you the courtesy of two or three copies of California and Western Medicine of February in which the discussion of our health insurance problems appeared, since quite a number of members of this committee are intensely interested to possess the said issue of your valuable journal.

With affectionate greetings from the Cuban physicians, permit me to sign myself,

Your most obedient and attentive servant,

(Signed) DR. FELIX HURTADO,
Secretary-General.

Subject of Following Letter: Misrepresentation by a "Dr." Kennedy

Medical Department
California State Prison at San Quentin

March 4, 1932.

To the Editor.—Within the past month a man giving the name of Doctor Kennedy has called upon several physicians in the bay counties, representing himself as being a neurologist and as having been one of my assistants at the San Quentin prison. He claimed that he had assumed the responsibility of an abortion to shield another man and that he had served his term in prison.

One doctor in Oakland had financed this man to a day's sojourn in a hospital. A few days ago, apparently the same man, calling himself Doctor Kennedy, caused a disturbance in the editorial rooms of the Sacramento *Bee* in Sacramento, evidencing his disapproval of an editorial written in regard to Dorothy Ellingson, a matricide. It was also reported he threatened Annie Laurie of the San Francisco *Examiner*.

Doctor Kennedy is unknown to me. His actions might lead one to believe he is a psychopath or that he is a drug addict seeking to get in a doctor's office or hospitals for the purpose of getting morphin.

It would be well for any doctor who comes in contact with this man to immediately inform the police so that he might be held for investigation.

L. L. STANLEY,
Resident Physician.

Subject of Following Letter: Transmission of Malaria Through Use of a Common Syringe

To the Editor.—For your information, and thinking it might be of interest to you, or for possible mention in your journal, I am sending the attached report relative to six cases of malaria.

Sincerely,

J. C. GEIGER, M. D.,
Director of Public Health, City and County of
San Francisco.

REPORT

March 11, 1932.

The following cases and report should be of decided interest. The investigation was started when the unusual occurrence was reported of six patients at one time in the San Francisco Hospital to determine the source of infection of these cases. The accuracy of the department's investigation is plainly manifest. Nothing like this in my experience has ever occurred before.

1. W., thirty-two years, quartan type. Onset February 1, 1932. A guest of the Hunter House, 675 Howard Street; also the Arcade House, 66 Clay Street, at the time of onset.

2. O., forty-five years, tertian type. Onset February 6, 1932. A guest of the New York House, 753 Howard Street.

3. W., forty-one years, tertian type. On February 1, 1932. Dwelling place unknown.

4. J., forty-two years, tertian type. Onset February 28, 1932. Dwelling place unknown.

5. B., thirty-nine years, tertian type. Onset February 13, 1932. A guest of the Golden Eagle Hotel, 253 Third Street.

Habits of all: Morphin addicts, hypodermic method.

They were all treated at the San Francisco Hospital, where the diagnoses were confirmed by demonstrating living organisms in blood. All recovered and discharged, except J., who died of pneumonia, and who was also a mental case.

In my opinion, either W. (1) or W. (3), whose onsets were the same, infected the others by the common use of the syringe, although they denied this, but I have had this habit corroborated by the clerk of the Hunter House, who says it is a habit to pass the syringe around when they are congregated in a room free from observation. It is obvious that, owing to the character of these men, their statements cannot be believed.

Inspection was made at three of these hotels for evidences of mosquitoes and breeding places without results.

These men were all cautioned about the danger of spreading disease in this manner, and advised to disinfect the syringe subsequent to each injection.

MEDICAL PUBLICITY — GOOD AND BAD

Refreshing Publicity

In these times when so much is printed in lay newspapers and magazines and when so much comes over the air that is anything but complimentary to the medical profession, it is refreshing to run across anything that gives expression to the altruistic service so often rendered by physicians, or that emphasizes the fact that physicians, like other citizens, must be properly compensated for their work.

Two such advertising announcements are here reprinted: the one under the caption, "Six Weeks Old—and Paid For" which has been brought out by the Bank of America Trust and Savings Association, and the other, which is put out by the Mead Johnson and Company and printed in the March 1932 *Hygeia*.

* * *

The Bank of America announcement is as follows:

"SIX WEEKS OLD—AND PAID FOR!"

Not many babies are "six weeks old—and paid for!" Too often, as doctors and hospitals so well know, parents find it necessary to delay many months in paying the "bills for the baby." In operations and accidents, it is the same way.

Realizing this condition, Bank of America is using a part of its advertising space to encourage the building of family emergency funds equal to six months' income. We believe that this is a helpful and constructive use of advertising—not only for our own interests, but in the interests of young married people, doctors, and hospitals.

A reprint of one of these messages, which will appear soon in more than three hundred California papers, is shown on the page following. Your comments on this type of advertising, and your suggestions, will be welcomed by us.

* * *

Then followed on the next page an appropriate illustration with the following text:

"SIX WEEKS OLD—AND PAID FOR"

"Yes, he's all ours," the young mother said proudly. "It's so much nicer not to have bills hanging over our heads and people joking about an 'installment plan' baby."

"How did we manage? Oh, our cash reserve in the bank took care of everything. We have never let our savings account fall below six months' income."

Such a fund is not too much to have in reserve for illness, loss of work or other emergency. . . . You can build up your cash reserve without stinting normal expenditures, by depositing a definite sum every pay day. Interest, paid at regular intervals, will help it to grow.

If you have a slumbering savings account, why not wake it up—add to it regularly! Some time you'll be glad you did.

There can be no better time than the present to make a new start at a convenient Bank of America branch."

* * *

The Mead Johnson advertisement has an illustration of mother and father at the desk, the child playing on the floor. Beneath the illustration is the legend: "Wife: 'We can pay all our bills this month, dear, except the doctor's.'" Text below then follows.

SHOULD THE DOCTOR'S BILL BE THE LAST TO BE PAID?

Is it because the doctor has no "cash and carry" sign over his door like the chain grocer? Is it because, unlike the automobile finance company, the doctor cannot swoop down and take away our baby or our health if we fail to make the monthly payment?

Is it because, unlike the mortgage company or the bank, he cannot foreclose a mortgage on our lives? Is it because, unlike the lawyer's bill, it does not contain a psychological something that seems to say between the lines, "I'll take you to court pretty quick if you do not pay quick?"

Or is it because we know the doctor is a good man, a kindly, sympathetic man who has waited before for his fee and "therefore" can wait again? Should he be penalized for being lenient while we say with celerity, "Here is your fee, Mr. Lawyer." "Glad to have your rent on time, Mr. Landlord."

Do we forget that this same, good, kindly, understanding, helpful physician is also a human being who has a family, and needs to eat and to pay his bills—in order to give us the prompt and efficient service we have come to expect of him?

Have we suffered lowered income and investment losses? So has the Doctor.

Do we realize that much of the doctor's income goes to pay for rent, salaries, taxes, instruments, books, and other expenses that enable him to give you service day and night?

Surely "the laborer is worthy of his hire" and surely we shall want his services again. Let's pay the doctor first. Babies supervised by physicians are better babies.

* * *

Some Publicity not so Refreshing

The March 9 Los Angeles *Record* gave a first page, two column article under the heading "Girl for Sale—\$10,000." There were photographs of the young woman in a bathing suit and in street clothes. The illustration had this legend:

"If you had \$10,000 would you marry this girl? If you have \$10,000 you can. She is Miss ———, 21-year-old beauty, who has appealed to 'The Record' to find her a husband who can provide \$10,000 for an operation needed by her mother."

The text of the article which was given so prominent a place in this newspaper was as follows:

"Because her mother has a crippled arm, Miss ———, 21-year-old brunette beauty, wants a husband."

"The husband, she said today, must have \$10,000, and be willing to give it to her mother for an operation and subsequent treatment that will restore use of the arm."

"Aside from the \$10,000, Miss ——— makes no other requirements. . . ."

"Miss ——— said her father is dead, and that neither she nor any of her three sisters has been able to find employment for weeks."

"I have talked this over with my mother and sisters, and we decided it is the only way out," she said."

COMMENT

It is deeply regretted that such an article should have been given such prominent place in a newspaper. It would have been so simple a thing for this young woman to have taken her mother to the Los Angeles County General Hospital, where a skilled staff of surgeons would have been glad to have extended all possible professional aid and that without cost so far as their own services were concerned, provided she and her family were as indigent as she professed. It would be interesting to know what kind of a doctor, if any, gave a price of ten thousand dollars to a woman in indigent circumstances. The editor of the *Record* surely must have forgotten how easily the information bureau of his publication could have told this woman where to go, when he permitted the story which this woman gave to one of his reporters to have such space in his paper. Harm was done to the newspaper, to other poor and deserving persons, and to a profession whose members give gratuitous services which annually run into money values amounting to tens of thousands of dollars. When so much real news exists, what a pity to print that which is not news, and which at the same time gives a totally wrong understanding of provisions for the care of the indigent sick.

CULTIST MEDICINE*

Some Letters from a California Chiropractic College—Which Speak for Themselves

Letter No. 1: Presumably a Letter to Be Sent to Applicants for Catalogs

* * *

COLLEGE OF CHIROPRACTIC PHYSICIANS AND SURGEONS—A COLLEGE OWNED AND OPERATED BY THE PROFESSION—ALL PROFITS USED TO DEVELOP THE COLLEGE

337 South Hill Street

Phone: Madison 3890

Los Angeles, California,

January 11, 1932.

Dear Mr. ———:

We have been requested to write you regarding our college, and call your attention to the courses of study arranged as follows:

Course No. 1—Limited Chiropractic Course Standard of 1922

Time—Eighteen months of 2400 sixty-minute hours.

* In this number are some editorial comments on this subject. See page 252.

Degree—Doctor of Chiropractic (D. C.).

Cost—Five hundred dollars cash or six hundred dollars on terms.

Sessions—Forenoon, three and one-half hours; afternoon, three and one-half hours; evening, three and one-half hours.

Vacations—The school has no vacations, but students may be absent as desired, making up the lost time before graduating.

Entrance—Students may enter any day or evening, as our instruction is on a rotary basis.

Attendance—Either one or two sessions daily, as convenient, and may change from one session to another as circumstances require.

Requirement—A high school diploma or its equivalent in mental training is necessary for application to the State Board for a license to practice.

Books—From \$50 to \$75, as needed. No charge for dissection or laboratory tuition.

Subjects Studied	Hours
Anatomy	600
Histology	100
Elementary Chemistry and Toxicology.....	100
Physiology	200
Bacteriology	100
Hygiene and Sanitation	100
Pathology	200
Diagnosis and Analysis	400
Chiropractic Theory and Practice.....	500
Obstetrics and Gynecology.....	100
	2400

On the completion of the above course, which can be in eighteen months, the graduate is eligible to examination by the State Board to procure a license to practice in the State of California. This is the shortest course, costing the least money, procurable anywhere.

Course No. 2—Our Present Standard Advanced Chiropractic Course

Includes all of Course No. 1 and the following additional work.

Time—Six months of eight hundred sixty-minute hours.

Degree—Philosophy of Chiropractic (Ph. C.).

Cost—One hundred and fifty dollars cash or two hundred dollars on terms.

Sessions—Day or evening.

Subjects — Electrotherapy; Hydrotherapy; Mental Therapy; Colonitherapy; Mechanotherapy; Dietetics; Biochemistry; Professional Ethics and Salesmanship; Office Methods; Urinalysis; Practice in Obstetrics; Attendance, Minor and Major Surgery; practical experience in diagnosis, including laboratory analysis.

Course No. 1 is a chiropractic course thorough, complete, and standardized as interpreted by various states and leaders of the chiropractic profession. This course is suitable to persons who desire to practice "straight chiropractic" or who have had other drugless training.

Course No. 2 is a comprehensive course of drugless methods other than the spinal chiropractic treatment. This course, combined with Course No. 1, is our ideal education for a chiropractor, as it qualifies the graduate to act as a family physician capable of handling all diseases excepting surgery.

The price of \$700 on terms covers the cost of Courses No. 1 and No. 2 if pursued at the same time.

February 1 is the beginning of a new term and as an inducement to start with this class, we offer a special discount of \$50 from the above price to those who enroll with a deposit of \$25 before that time. Special financial arrangements can be made by seeing Doctor ———.

In addition to the standard Chiropractic Courses No. 1 and No. 2, we feel called upon to meet the demand of the public for higher education and have added Courses No. 3 and No. 4, chiropractic physicians and surgeons subjects, which is available only to students who have secured a state license to practice chiropractic.

There is no law to permit the use of the subjects in Courses No. 3 and No. 4 in our practice, but we believe that the chiropractor should be as well educated as his competitor, and to persons who desire this education, we offer the chiropractic physicians and surgeons' course, particulars of which will be mailed to anyone inquiring for same.

Our clinic is conducted from 10 a. m. until 7 p. m., using all the drugless modalities of healing, giving the student practical experience in all subjects included in Course No. 2. All forms of electricity, colonic irrigation and eliminative methods are used in our daily clinical practice.

We conduct a maternity clinic with a staff of fully licensed physicians and surgeons who give their services without cost to persons who are unable to pay for their obstetrical care. Our advanced students are admitted to these obstetrical clinics and when sufficiently experienced are allowed to assist in delivery of cases. Many of our graduates include obstetrics in their practice.

The special feature of this college is that it is owned and controlled by the profession with no individual receiving profits. All gains from the school are used to develop the institution.

Our students witness surgery at hospitals and are eligible to internship in a private hospital which is controlled by the chiropractic profession.

We have probably the lowest percentage of failures on the State Board, and no faithful student need fear failure when applying for a state license.

We would be pleased to have you visit our institution and talk the matter over, or better still, we prefer that you sit in classes and observe our work.

Trusting that this letter covers the vital points of interest to you, and believing you will recognize the importance of selecting our college, the only drugless institution owned and controlled by the profession, insuring the best instruction at the lowest rate possible, we are

Yours truly,
COLLEGE OF CHIROPRACTIC PHYSICIANS AND SURGEONS.
By _____, D. C.

Courses Offered
Curriculum of College of Chiropractic Physicians and Surgeons
337½ South Hill Street
Los Angeles, California

COURSE NO. 1—LEGAL CHIROPRACTIC			COURSE
	Hours	Hours	
Anatomy		600	
Embryology	100		
Osteology	100		
Myology	100		
Neurology	100		
Angiology	100		
Brain and cord	100		
Dissection			
Histology		100	
Elementary Chemistry and Toxicology		100	
Physiology		200	
Bacteriology		100	
Hygiene and Sanitation		100	
Pathology		200	
Diagnosis and Analysis		400	
Symptomatology	100		
Physical Diagnosis	200		
Clinical Diagnosis	50		
Laboratory Diagnosis	50		
Chiropractic Theory and Practice		500	
Chiropractic Philosophy	100		
Chiropractic Technique	200		
Chiropractic Clinic and Practice.....	200		
Obstetrics and Gynecology		100	
		2400	

The prerequisite for this course is a High School diploma or equivalent in mental training.

This course meets the requirement of the California Chiropractic law. License to practice available.

Time—Eighteen months of 2400 sixty-minute hours.

Cost—Five hundred dollars cash or six hundred dollars on terms.

COURSE NO. 2—ADVANCED CHIROPRACTIC COURSE

	Hours
Hydrotherapy	
Fomentations, strops, packs, mitten friction, colon therapy, blood wash	100
Heliochromotherapy	
Ultra-violet, infra-red, radiant therapy, Cobalt lens, red, orange, yellow, green, blue, indigo, magenta, violet	100
Electrophysics	
Construction and repair of apparatus, physics of the different electrical modes, transformers oscillating circuits, faradic-free sinusoidal currents, high-voltage galvanic circuits	50
Electrotherapy	
Application of D'Arsonval, Tesla, and Oudin currents. Application of high and low voltage galvanic current, static, and sinusoidal currents, radiant energy	150
Manipulation Manual	
Gynecological treatments by digital surgery, rectal and hemorrhoid digital surgery, tissue and articulation adjustments	50
Food Chemistry	
Dietetics and chemistry of metabolism	100
Clinical Diagnosis and Urinalysis	
Practical laboratory analysis and interpretation of urinalysis, stomach contents, blood count, etc....	50
Obstetrics—Clinical	
Actual practice in the delivery room	50
Dissection	70
Kinesthesiology	
Scientifically applied exercise for body building	50
Ethics and jurisprudence	30
	800

Leading to the degree of Ph. C. or N. D. Those desiring to become candidates for this degree must present as prerequisites, satisfactory evidence of having completed all subjects as outlined in Course No. 1.

Time—Six months.

Cost—One hundred and seventy-five dollars cash or two hundred dollars on terms. Course No. 1 and No. 2 combined, \$700; terms.

COURSE NO. 3—PREPARATORY TO CHIROPRACTIC PHYSICIANS AND SURGEONS' COURSE

	Hours
Biology	260
1. Zoology	
Basis of classification; unicellular organisms; four classes of protozoöns; pathogenic protozoöns; metazoa; study of phyla from sponges to the development of tissue organs and systems.	
2. Comparative Anatomy	
The different animal groups in the vertebrate series. Shark, frog, rabbit, cat, guinea pig.	
3. Embryology and Genetics	
Simple cell division; maturation of ovum and sperm. Fertilization of the ovum. Genetics, chromozomes and geneses, the conveyors of hereditary characteristics. The laws under which they operate.	
Chemistry	260
1. Inorganic	
Chemical law; reaction; formulae and equations; chemical elements; individual reactions.	
2. Organic	
Classification of organic compounds. The chain series of carbon compounds. The aromatic series of carbon compounds. Carbohydrates—proteins.	
3. Physiologic	
Chemistry and the human organism. Digestion. Carbohydrates, fats, proteins. Assimilation and excretion. Atypical biochemical activities.	
Physics	130
Mechanics, liquids and gasses, matter and force. Wave motion and sound. Heat. Magnetism, electrostatics, electric currents, radioactivity, radiant energy, light, radiation, the quantum theory.	
	650

This course is prerequisite to entering as a candidate for the degree of chiropractic physician and surgeon.

COURSE NO. 4—CHIROPRACTIC PHYSICIANS AND SURGEONS' COURSE

	Hours
Course No. 1—Legal chiropractic course	2400
Course No. 2—Advanced chiropractic course	800
Course No. 3—Preparatory to chiropractic physician and surgeon course	650

In addition to the above credits the following is required:

	Hours
Biochemistry	140
Advanced pathology and immunology	100
Pharmacology, materia medica, toxicology and therapy	160
Preventive medicine, hygiene, dental inf. nutrition	20
Anesthesiology	22
General medicine	106
Infectious diseases	40
Gastro-enterology	60
Nephrology	48
Syphilology	24
Circulatory and respiration	96
Neurology	24
Dermatology	48
Pediatrics	48
Psychiatry	48
Metabolic and blood	48
Endocrinology	48
Surgery	
First aid	11
Principle of surgery	55
General surgery and diagnosis	121
Urology	22
Otorhinolaryngology	44
Ophthalmology	44
Radiographic diagnosis	33
Laboratory surgery	44
Orthopedic surgery	33
Fractures and dislocations	22
Surgery and neoplasms	11
Clinical chiropractic surgery	154
Advanced obstetrics and gynecology	100
Chiropractic ethics and jurisprudence	18
	1800
	5650

Leading to the degree of chiropractic physician and surgeon.

* * *

Another Letter: Self-Explanatory

CHARTERED BY THE STATE OF CALIFORNIA

COLLEGE OF CHIROPRACTIC PHYSICIANS AND SURGEONS—A COLLEGE OWNED AND OPERATED BY THE PROFESSION—ALL PROFITS USED TO DEVELOP THE COLLEGE

337 South Hill Street

Phone: Madison 3890

Los Angeles, California,

October 30, 1931.

Dear Doctor:

For our future protection our educational standards must keep step with the march of progress acceptable to the public.

With this view a group of chiropractors, about fifty in number, have taken over the Southern California College of Chiropractic, moved it to 337 South Hill Street and renamed it "College of Chiropractic Physicians and Surgeons."

Operating under a charter issued May 5, 1925, and amended October 7, 1931, the College of Chiropractic Physicians and Surgeons is authorized to teach all subjects in our curriculum and grant degrees and diplomas for same.

This institution is now in the process of reorganization and expansion and has outlined a policy intended to elevate our present standards, and charging a reasonable price for tuition.

Although we have not given out publicity nor have we solicited inspection, yet several hundred chiropractors have already volunteered their moral and financial support of this movement that will create a school to be owned and controlled by the profession.

The courses of study are as follows:

Course No. 1—Chiropractic legal standard of 1922, now in force, requires eighteen months, 2400 hours (60 minutes), costing \$600.

Course No. 2—Chiropractic advanced course, six months, 800 hours, costing \$200.

Course No. 3—Our Present Standard Chiropractic Course combines Courses No. 1 and No. 2, twenty-four months, 3200 hours (60 minutes), costing \$700.

Course No. 4—Chiropractic physicians and surgeons course, which is composed of Course No. 1 and the additional subjects as follows: One year college preparatory—chemistry, biology, and physics—and 1782 sixty-minute hours covering the following subjects: Pharmacology; General Medicine; Surgery; Pathol-

ogy; Materia Medica and Therapeutics; Anesthesiology; Preventive Medicine; Advanced Bacteriology; Advanced Obstetrics and Gynecology.

Cost to the first one hundred students is \$150, payable \$7.50 per month. The next one hundred will probably be charged \$200, which as yet is undecided. No more students will be permitted to enter the present class after November 15. A new class will be formed for December 1.

The physicians and surgeons class, starting in July with a few members, has increased, until today sixty-six licensed chiropractors are attending this class from 7:45 to 9:30 a. m., and from 5:15 to 7 p. m., five days a week. They are using standard textbooks with qualified physician and surgeon teachers.

The members of the class, all being licensed, are each allowed 2400 hours credit and will be required to make up about 2000 additional hours to receive the degree of "Chiropractic Physician and Surgeon."

There is no law as yet legalizing chiropractic physicians and surgeons, but we believe that the demand of the public requires that our education be equal to our competitors, removing the universal stigma of incompetency.

We also believe that when two or three hundred chiropractors have completed the physician and surgeon curriculum, which is accepted the world over as the standard for the healing profession, we will be justified in asking the voters of California to amend our chiropractic law to grant two licenses: One, the chiropractic license as now exists, and the other, a chiropractic physicians and surgeon's license.

In this movement we are not abandoning chiropractic principles, but are emphasizing chiropractic technique, electrotherapy, biochemistry, reflexes, and other drugless subjects.

The chiropractors now holding stock have elected a board of management, who are acting as the nucleus in reorganizing and enlarging the institution. They are now ready to receive applications for the purchase of stock. The stock is nonprofit sharing, nonassessable, and costs \$10 per share. Ownership by the profession has met with remarkable support. With only two months of reorganization the undergraduate class has doubled and the physicians and surgeons' class has trebled in number.

INSTRUCTORS OF COURSE NO. 3

(List of nine names follows.)

INSTRUCTORS OF THE PHYSICIANS AND SURGEONS' COURSE NO. 4

(List of six names follows.)

Now that the remodeling and decorating is about completed, we invite you to visit and inspect the institution.

Believing that your investigation will result in your coöperation and support of our efforts, and anticipating your favorable response, we are

Sincerely yours,

COLLEGE OF CHIROPRACTIC PHYSICIANS AND
SURGEONS.

Board of Management.

P. S. The mission of the College of Chiropractic Physicians and Surgeons being humanitarian and coöperative, we feel justified in rewarding service by the payment of \$50 to members of our profession who refer students to this institution.

* * *

Another Letter

CHARTERED BY THE STATE OF CALIFORNIA

COLLEGE OF CHIROPRACTIC PHYSICIANS AND SURGEONS—A COLLEGE OWNED AND OPERATED BY THE PROFESSION—ALL PROFITS USED TO DEVELOP THE COLLEGE

337 South Hill Street

Phone: Madison 3890

Los Angeles, California,

January, 1932.

Dear Doctor:

This letter is addressed to you to ascertain the number of chiropractors in the various sections of

California who may be interested in increasing and improving their education by completing the necessary academic work, both premedical and medical, to obtain the degree of "Chiropractic Physician and Surgeon."

The College of Chiropractic Physicians and Surgeons, a chiropractic college owned and operated by the profession, at 337½ South Hill Street, Los Angeles, is now, and has for approximately the last six months been giving this academic work. At the present time there are seventy-eight enrollments for this work with a number waiting for entry in January.

It may interest you to know that all profits from the management of this college over and above necessary expense of operation are used to build up and equip this institution, there being no individual profits to anyone at any time.

Owing to several requests from the northern parts of California, arrangements have been made to conduct this study under the charter of the "College of Chiropractic Physicians and Surgeons" at the San Francisco Chiropractic College building, utilizing their equipment and laboratories, thus reducing the cost of this instruction.

None but licensed chiropractors are eligible to enroll. There will be approximately 650 hours in premedical and approximately 1800 hours in medicine and surgery. Standard textbooks will be used and teachers will all be lettered men in their profession, eligible and able to teach their subjects. Placing instruction above reproach, there will be no chiropractors teaching the subjects.

The time necessary for this work will consume from twenty to twenty-four months at a cost of approximately \$10 per month in San Francisco and \$7.50 per month in Los Angeles. The difference in price is due to the large class available in the south.

This course is conducted in response to the solicitation of members of the profession who wish to broaden their field of knowledge and scope of usefulness.

While there is no law as yet legalizing chiropractic physicians and surgeons, we recognize that the demand of the public requires that our education be equal to our competitors. The additional education will be worth more to you than the time and money spent to acquire it.

There is no doubt in our minds that when the people of California know that we are ready and eligible for a license in medicine and surgery they will grant us a license.

There will be approximately four hours a day class and laboratory work. The hours will be arranged to suit the majority. All classes are expected to be finished by 7 p. m.

Remember, doctor, the study is being conducted by the field's own institution, you being the only one to profit.

The class in San Francisco will be started on January 18, 1932, at an hour to be decided upon later. If you desire this work, kindly fill in the application blank and mail to your nearest college not later than January 11, 1932.

Unless there are enough applications by this date to justify a class in San Francisco, your money will be refunded and the starting of the class postponed.

The class in Los Angeles is in operation and will accept new members now. We solicit your response and your application if interested in furthering your education, and if not we shall be pleased to have your opinion of this movement.

Respectfully submitted,

COLLEGE OF CHIROPRACTIC PHYSICIANS AND
SURGEONS.

1122 Sutter Street
San Francisco

337½ South Hill Street
Los Angeles, California

ENROLLMENT BLANK

College of Chiropractic Physicians and Surgeons:

I hereby apply for admission in the Physicians and Surgeons Class as above outlined, and enclose _____ dollars (\$10 S. F. Class or \$7.50 L. A. Class) first month's tuition, the same to be returned to me in case the class fails to materialize.

Name _____

Address _____ Phone _____

* * *

California College Incorporation Bill*

How a Chiropractic School Changed Its Name

"The College Incorporation Bill (S. B. No. 131, Slater), now Chapter 719, Statutes 1931, will afford an added check on the schools that grant professional degrees. Hereafter incorporated schools that grant professional degrees (and it is now misdemeanor to grant such degrees unless duly incorporated) must file annually with the Superintendent of Public Instruction 'a verified report showing the number of students of said corporation, together with the names and addresses of said students, the course of study offered by said corporation, the names and addresses of the teachers employed by said corporation, the subjects taught by them, the degrees, if any, granted by said corporation and to whom granted, the curricula upon the basis of which such degrees were granted, and any other information concerning the educational work or activities of said corporation that may be required by said Superintendent of Public Instruction,' and failure so to do is a misdemeanor. This is a most valuable amendment to further curb the itching palm of the diploma-mill operator, who, faced with the Diploma Mill Bill (Chapter 79, Statutes 1927) and the amendments to the Civil Code governing incorporation of colleges, etc., will find his path beset with discouraging obstacles.

* * *

"The transition of a professional degree corporation is illustrated by the Cale College of Chiropractic, Los Angeles, which, according to the records in the office of the Secretary of State, filed articles of incorporation—capital stock \$10,000, Corporation No. 114029. On September 5, 1929, amended articles were filed changing its name to the Southern College of Chiropractic, reported by the Secretary of State as suspended May 1, 1931, on account of failure to pay the California State franchise tax. On October 6, 1931, amended articles were filed changing its name to 'College of Chiropractic Physicians and Surgeons.' This school is one of two California chiropractic schools reported as offering a course in medicine and surgery to their students in anticipation that through prospective legislation they will secure the right to unlimited practice as physicians and surgeons."

* * *

STATE INSPECTOR'S COMMENTS ON CHIROPRACTIC VIOLATIONS OF MEDICAL PRACTICE ACT

From the legal report of the northern district, as printed on page 24 of the 1931 "Annual Report of the Board of Medical Examiners of the State of California, the following is taken:

"Throughout the state the licensed chiropractors are administering to their patients any number of medical substances as remedial agents, in violation of the Chiropractic Law, which is an admission of the failure of the contention of the chiropractors that chiropractic is something new, and with but few exceptions throughout the state they are practicing medicine and attempting to become doctors of medicine by entering through the 'back door.'

"We have been unsuccessful in our efforts to curb some of these violators, as the facts presented as evidence are questions of law, which the average juror is incapable of determining, and the only solution seems to be some effort on the part of the Board of Chiropractic Examiners to enforce their law."

* Reprinted from page 16 of the "Annual Report of the Board of Medical Examiners of the State of California," 1931. Being document No. 91873 of the California State Printing Office, Sacramento, 1932.

SAN JOAQUIN TAX-SUPPORTED HOSPITALS

Medical economics in its different aspects will be considerably discussed at this year's annual session of the California Medical Association, to be held at Pasadena on May 2-5. The "Survey of the Medical Facilities of San Joaquin County, California," made under the auspices of the national Committee on the Costs of Medical Care is produced in a volume of some 230 pages, brought off by the University of Chicago Press, Chicago. The volume is sold at one dollar per copy.

The county hospital problem in San Joaquin has been before the profession for years. Because Chapter XII deals with the "Tax Supported Hospitals" of San Joaquin County, and discusses problems which exist in other California counties, it seems desirable to reprint in CALIFORNIA AND WESTERN MEDICINE what is stated in Chapter XII. Especially so, because in this way the report of the national Committee on Medical Care may in this manner be better called to the attention of the members of the California Medical Association. (See also editorial in this number of CALIFORNIA AND WESTERN MEDICINE, page 253.

Chapter XII, with the exception of a few paragraphs on the Bret Harte Sanatorium, is as follows:

CHAPTER XII

Tax-Supported Hospitals

Free medical care is made available to residents of San Joaquin County in two county hospitals and in an outpatient clinic attached to one of these institutions. The city of Stockton also supports an emergency hospital. In addition to these institutions, the Stockton State Hospital, which is a state hospital for the insane, is located in the county.

San Joaquin General Hospital.—In 1851, a board of supervisors made a contract with a physician "to take care of the indigent sick citizens of San Joaquin County in a general hospital and pest house for the term of one year, commencing August 22—furnish suitable buildings, furniture, beds, bedding, nursing, proper hospital supplies and medical attendance, and bestow the kindness, sympathy and encouragement their restorative merit enjoins; also bury the dead, if any, for the sum of \$3,400. . . ."

From this beginning has grown the present San Joaquin General Hospital, first called the San Joaquin County Hospital and Almshouse, an experiment in community provision of organized medical care. Since 1902, the policies of the hospital have been under the direction of only two superintendents, one holding office from 1902 to 1912, and the other since 1912.

The hospital has gradually expanded its service. In 1902 the Nurses' Training School was opened. Later additions were: In 1913 the tuberculosis ward, in 1923 a new contagious ward, in 1924 a new building for indigent-aged or "custodial" cases, in 1927 a new building for nurses, and in 1929 an observation ward for mental cases. Today the hospital is accredited by the American College of Surgeons, its school for nurses and its dietetic department are accredited by the California Bureau of Nursing, its clinical laboratory is approved by the California State Board of Health, and its tuberculosis patients are accepted for subsidy by the California State Bureau of Tuberculosis.

Policy.—The general policy of the hospital has made it the medical storm-center of the county for many years. This policy is to accept as a patient any resident of San Joaquin County regardless of his ability or inability to pay. The hospital makes it a routine procedure to send a single bill to every patient who makes use of its facilities. The amount of the bill is based on the following charges: Use of operating room, major operations, \$10; minor operations, \$5; anesthesia, \$5; x-ray, \$2 per negative; room and board and all other service, \$2 per day. No fees are charged for medical or surgical care, other laboratory services, or for dressings or laundry. No second bill for services is ever rendered and the hospital makes no further attempt to collect money from patients.

The policy of accepting any resident of the county at the above rates is not without certain self-limiting factors. Whereas two-bed rooms are available, it is the medical need, and not the economic status of the patient, which determines whether a patient shall be placed in a two-bed room or in a general ward. The medical need also decides the question of nursing: Once the patient enters the hospital his illness determines whether or not special nursing is to be provided. Thus, many wealthy patients who insist upon private accommodations and special nursing irrespective of the severity of the illness may prefer to go to other hospitals where their high incomes may purchase "luxury" medical care. On the other hand, if the San Joaquin General Hospital provides surgical and medical care of a higher order than that obtainable elsewhere

¹Year Book, San Joaquin General Hospital School of Nursing, 1930.

in the county, wealthy patients may prefer to submit to the democratic policy of the institution for the sake of their strictly medical needs.

The fact that many wealthy patients have chosen the latter course precipitated a medical controversy concerning the policy of the hospital. The superintendent of the hospital has long been regarded as one of the leading surgeons of the county. Before September 1, 1928, his services for private patients were not available because he gave all of his time to the hospital. As a result, even the wealthy residents of the county could obtain his services only by entering the hospital and accepting the same facilities and treatment available to indigent patients. Certain of the patients who were able to pay for private accommodations in other hospitals were probably glad enough to reduce the costs of their illnesses, but from the evidence observed it is the author's opinion that a great majority of the well-to-do patients entered the hospital, not because of the low cost of its services, but in spite of it.²

Attitude of the County Medical Society.—At regular intervals the county medical society passed resolutions condemning the policy of the county hospital. The actions of the society were largely concerned with the following complaints:

- (1) The failure of the hospital to organize a visiting staff.
- (2) The acceptance of patients, excepting in emergencies, from outside the county.
- (3) The policy of the hospital in accepting "able-to-pay" patients.

The first criticism has now been allayed by the appointment of a visiting staff, serving without pay, from among the practicing physicians in the county. While the superintendent was employed on a full-time basis until September 1, 1928, he was assisted by a full-time staff of resident physicians. The full-time staff, consisting of five physicians, still remains at the hospital, but there has been added a visiting staff of seven practicing physicians selected by the superintendent who is himself now on a part-time basis. The visiting staff provides services in eye, ear, nose, and throat, genito-urinary, obstetrical, orthopedic, and internal medicine cases. Each member, with the exception of the doctor in charge of the orthopedic services, gives one morning weekly to his service; orthopedic service is given two mornings a week. In addition, the specialists in obstetrics and internal medicine are available at any time. Although patients who are admitted to the hospital cannot select their private physicians, physicians are allowed to care for certain of their private patients as a courtesy. According to the superintendent, the physicians in the county seldom ask for this privilege.

The superintendent considers that there are advantages and disadvantages in this new plan of operation. The main advantage is that a specialist is in charge of each type of service. The disadvantages are that the services are not continuous, hence cases are not given the rapid attention many of them should have. Some trouble arises with the nurses as a result of verbal orders left by the visiting staff. Although the members of the resident staff are always available, they hesitate to issue orders for cases under the care of a member of the visiting staff. According to the superintendent, this plan of operation brings up the question as to whether it is better to have a leading specialist take charge of a case which has not previously been under his observation, and which he sees at weekly intervals, or to assign to the patient a physician of average ability from the beginning of the case to its end.

The second criticism of the county medical society proved to be unfounded. It was discovered that, at least in the present operation of the hospital, no such criticism was merited. Only in emergencies, such as accidents, are patients from outside the county admitted without formality. As an example of other admissions, during an interview with the superintendent, the Red Cross worker in Amador County telephoned that a woman in that county was, according to her physician, in need of surgical attention not available there. On the assurance that the physician recommended the admission of this patient as an indigent case and that the Red Cross guaranteed expenses the patient was accepted. The superintendent said that such emergencies occur very seldom. Only three tuberculosis cases coming from outside the county were reported and these were accepted at the request of the counties and the State Tuberculosis Bureau. The charge of these patients is made directly against the counties from which they come.

The third criticism, that the hospital accepts patients who are able to pay has, however, excited the greatest amount of discussion and the greatest number of condemnatory resolutions from the county medical society. As early as 1908 a resolution was passed by this body condemning the policy of the hospital in admitting patients who could afford to pay.

Since 1920 the minutes of the meetings of the society and of its board of directors show more or less regular action taken against the policy of the hospital. One practice, now no longer current, and formerly particularly

condemned, was that which allowed the supervisors to issue permits for people who desired to enter the county hospital. Under this system there was danger of excessive utilization of the hospital facilities and of a very wide distribution of supervisors' patronage.

A number of investigations (the last in 1929) were made by committees from the county medical society. In 1921, the committee which had been appointed by the medical society to investigate the admission of pay patients at the county hospital reported that they had received only eight definite complaints from physicians against the admission to the hospital of citizens who were well able to pay for private service. The committee considered this small number in relation to the 2,400 patients passing through the hospital that year and decided that no further action should be taken.³

In 1925 the society again appointed a County Hospital Relations Committee for the purpose of working with the "County Hospital and allied societies to prohibit the admission of pay patients and to further the idea of a medical staff at the hospital."⁴ The next year a motion was passed that the board of directors of the society employ legal advice to force the San Joaquin General Hospital to refuse all pay patients.⁵ This action followed the opinion given by a local attorney that the board of supervisors was overstepping its legal authority in permitting the hospital to accept pay patients.⁶ In his statement the local attorney reported that the attorney general had been called upon many times to interpret the intentions of the legislature with regard to the purpose for which the San Joaquin General Hospital had been designed. The attorney general indicated in his report that "pay patients should only be admitted where the county has no hospital other than the county hospital, or in the case of epidemics." He recommended certain procedures which the county medical society might follow to bring to an end the hospital policy which they criticized.

During these years of controversy between the local medical society and the hospital administration, the general public took little or no part. In 1928, however, the issue of eligibility to hospitalization in the county hospital took a political turn. One supervisor, in particular, based his campaign on the platform that the county hospital should be open to all residents of the county. During this campaign the people of the county probably received more education concerning the general availability of county hospital services than at any time before. The supervisor was elected on his platform and the result of the campaign proved that the voters were not greatly concerned over the possibility that they might be paying through taxes the hospital bills for able-to-pay-patients.

A report dated May 2, 1929, from the local attorney who had previously assisted the county medical society apparently closes the question of official action to be taken by the society. The report reiterates the statement concerning the illegality of the hospital's accepting pay patients. The following statement from this report is of interest: "Apparently the continuous action of your Committee has brought considerable results for the reason that when the examination of the books was made at the time of the appointment of the Committee it appeared that about 20 per cent of the occupants of the hospital were pay patients and a number of them were men of wealth, while at the present time this number has been greatly decreased and a present check ending April 30, 1929, does not find a single person, with possibly one exception of the so-called 'able-to-pay' patients. There are, of course, some of those who are receiving treatment who might be classed as pay patients, though an examination of the general surroundings indicates that under the rule which we propose to establish they would be admitted for treatment."

The final report of the committee appointed in May, 1928, to investigate the hospital was made in June, 1929. This report advised against court action and stated that "in the opinion of the members the instances of 'able-to-pay patients' being admitted to the hospital are diminishing in number." This opinion was based upon check-ups in the hospitals when no "able-to-pay" patients were found under treatment.

In October, 1928, the superintendent withdrew as full-time director of the hospital and gave half his time to private practice. Those patients who had gone to the county hospital solely because it was the only way in which they could obtain his services engaged him as a private practitioner. The total fees which this surgeon collected during the year not only indicate that his entry into private practice took pay patients from the county hospital but also suggest the possibility that his increased clientele has encroached upon the practice of other physicians in the county.

In this connection, there also arises a question of how much the burden of carrying patients who are only partially able to pay has now been thrown back on the shoulders of private practitioners. Of course, the portion of the superintendent's present private surgical practice which would have gone to the General Hospital under its policy of refusing to provide private rooms and special nursing care, except in those cases requiring this service, cannot be determined.

Based upon the statements made by the members of the investigating committee of the San Joaquin County Medical Society and the minutes of the society, it is the

²There is little doubt that many well-to-do individuals were hospitalized in the general hospital, especially prior to October, 1928. The hospital records of income from patients show that for the three years, 1927, 1928, 1929, collections totaled respectively, \$14,426.48, \$10,241.58, \$7,363.00. That many of the well-to-do patients sought the surgical service of the superintendent is shown by the abrupt drop in monthly income beginning October, 1928, prior to which date the superintendent's services were not available except to patients in the hospital.

³Minutes of the San Joaquin County Medical Society, regular meetings, November 18, 1921.

⁴Minutes of the regular meeting, January 8, 1925.

⁵Minutes of the special meeting, May 18, 1926.

⁶Minutes of the meeting, February 3, 1927.

investigator's opinion that the county hospital, as it now operates, cares chiefly for indigent patients and those who, while not indigent, might be pauperized if they were required to carry the burden of hospital and other expenses for medical care. Likewise there is little doubt that certain well-to-do patients even now take advantage of the hospital's policy. The entrance of even one of these individuals adds fresh fuel to the flames of controversy.

One of the major complaints of physicians concerned the lack of a social service department to supervise the admission of patients to the San Joaquin General Hospital. The hospital has had some experience with this type of service in an attempt to classify patients according to their ability to pay. Two social workers were at one time employed for this purpose. However, according to the superintendent, the procedure created so much opposition that the department was abolished. Apparently, since the hospital is supported by taxes, the general public believed that all taxpayers should be eligible to free service. At present no social service work is carried on except that the hospital follows a routine procedure of writing to all surgical patients during the third and sixth month following discharge and requesting that they appear for re-examination.

Services.—As stated in Chapter VII, the facilities of the San Joaquin General Hospital are more extensive than those of any other institution in the county. This is the only institution which admits communicable diseases, and it has gradually added beds for the care of moderately advanced and advanced cases of tuberculosis, a ward for the observation of mental cases, certain facilities for dental care, and additional equipment for diagnosis and treatment. That the dental care provided is rather limited is shown by the report of 437 examinations, 60 fillings, 1,890 extractions, two dentures and a few surgical cases during 1929.

The constant demand for hospital care is indicated not only by the occupancy rate of 100.9 per cent (Table 40), but even more by the surgery record and by advance appointments for this service. These records show that during 1929 a total of 1,243 patients received surgical care in the one operating room in the hospital. Of this number, 859 (69 per cent) were minor surgical cases, and of these, 731 were tonsillectomies. Most of the tonsillectomies were referred by the District Health Department. The surgical appointment book gives further evidence of the demand for surgical care. Listed for service between August 1 and December 9, 1930, were 379 advance appointments. Of these, 284, or 75 per cent, were for removal of tonsils and adenoids.

During 1929, a committee appointed by the supervisors to investigate the condition of the county courthouse was given the added task of inquiring into the adequacy of the physical plant at the General Hospital. Early in 1930, the committee recommended that the hospital facilities and capacity for surgery be immediately increased and that a plan be developed to replace the present outworn buildings. As a result, construction on the new 110-bed surgical unit to cost \$270,000 was begun and plans were drawn for a 500-bed hospital eventually to replace the present 400-bed institution.

Costs.—As already stated in Chapter VII, the San Joaquin General Hospital accounts are not divided to show the costs per patient and the costs per custodial inmate. Furthermore, the hospital operates a large farm and produces its own dairy supplies and a certain amount of meat and vegetables. So far as can be determined it appears that the farm is operated at a loss though the hospital "purchases" foodstuffs from the farm at current market prices.

The hospital in its own records shows a patient-day cost of \$1.689. This amount, however, should be recalculated if it is to be compared with the operating costs of similar institutions. In its computations, the hospital subtracts the following items from the total costs of \$303,632.26 reported by the auditor for the fiscal year, July 1, 1928, to June 30, 1929:

Income from pay patients	\$7,362.58
Tuberculosis subsidy ⁷	5,473.33
Bret Harte laundry ⁸	4,457.08
Detention home provisions.....	247.84
Eggs sold	4,128.47
Miscellaneous cash sales.....	2,835.66
Hogs sold	2,539.52
Outlay for fixed property and equipment...	9,106.43
Structural and nonstructural improvements	5,298.71
Total	\$41,449.62

Obviously certain of these items should not be subtracted from the operating costs if a patient-day cost is desired which will be comparable with those of other institutions. Furthermore in computing its patient-day figure the hospital does not include depreciation and interest.

In recomputing for this study the patient-day costs of the hospital, all the items listed above except the first and second are deducted from the auditor's figure of \$303,632.26. The remainder becomes \$275,019. To this amount are added items of interest on capital investment at 5 per cent (\$28,877), depreciation on buildings calculated at 2 per cent (\$8,629), and depreciation on equipment at 10 per

⁷ A grant made by the state on the basis of \$3 per patient-week toward the care of tuberculous patients.

⁸ The laundry plant attached to the San Joaquin General Hospital also serves Bret Harte Sanatorium.

cent (\$13,955). The total costs are, therefore, estimated to be \$326,480.

The hospital reports 150,056 patient-days. Since the estimate includes both custodial-days and infant-days, this figure must also be revised. Infant-days are estimated as 3,000⁹ and, when subtracted from the patient-days reported, leave approximately 147,000 days to be divided between actual patients and custodial inmates. Custodial-days, assuming 81 custodial inmates, are estimated at 29,565¹⁰ and patient-days at 117,451.

An arbitrary figure of \$1¹¹ per custodial-day was assumed; or a total of \$30,000 for custodial care. Deducting this amount from the total costs (\$326,000) for the year leaves a remainder of \$296,000. Dividing this amount by 117,451 patient-days gives an average cost of \$2.52 per patient-day.¹²

The Out-Patient Department.—For a number of years prior to 1924, a clinic for the treatment of the indigent sick was operated by the City Health Department of Stockton. When, in this year, the San Joaquin Local Health District was formed, an agreement was reached by the District and the Board of Directors of the County Medical Society whereby the society undertook the operation and staffing of the clinic under the general direction of the District Health Officer. The clinic operated with little satisfaction either to the Health District or to the medical society.

In May, 1926, at a special meeting of the medical society, the District Health Officer reported certain suggestions made by the County Board of Supervisors and the Superintendent of the General Hospital for the operation of the clinic. It was suggested that the clinic, staffed by the medical society, should virtually be operated as an out-patient department of the county hospital examining patients for admission and giving care to ambulatory patients, and that these services should be available to all residents of the county. The supervisors are reported to have said that unless the medical society accepted their suggestions they would establish a clinic for the indigent sick elsewhere than at the Health Center and that this clinic would be conducted by the staff of the county hospital.

The medical society considered these proposals and at a later meeting approved a motion that a conference be held with the view of turning the clinic operations over to the supervisors. Following this action the San Joaquin General Hospital established its out-patient department in Stockton in a building occupied by the Welfare Bureau, and the Health District Clinic was closed.

In a short time the need for enlarging the clinic became acute and, in 1928, the superintendent of the county hospital requested the medical society to organize a staff on the previously suggested basis of admitting to treatment any resident of the county. A committee appointed by the Board of Directors of the County Medical Society reported against the plan and this report was accepted.¹³

The medical society's official action did not prevent the organization of the clinic staff. Certain physicians granted the request of the superintendent, and now six are giving their services at regular hours during the week. The director of the clinic is on a full-time basis and the services rendered include all ambulatory cases with the exception of venereal and other communicable diseases. Venereal cases are referred to the Health District Clinic and other communicable disease to the San Joaquin General Hospital.

Regular hours are devoted to the following clinics: Prenatal and postnatal, postoperative releases from the county hospital, gynecological, pediatric for preschool and school children, diabetic, orthopedic, and eye, ear, nose, and throat. Dental cases are referred to the county hospital.

Except for those cases applying for admission to Bret Harte Sanatorium there is no social service connected with the out-patient department. The economic status of the patient is not considered and the only requirement for eligibility to treatment is three months' residence in the county.

The facilities for treating the large number of patients who apply for care appear to be inadequate. During the investigator's visits to the clinic the waiting room was crowded and the shortage of examining rooms involved delays. According to the annual report of the San Joaquin General Hospital, 6,199 new patients were admitted and, of these, 1,952 were referred to the hospital and 420 to the Health District clinics. Total treatments numbered 14,135.

The cost of operating the clinic with its paid staff of a director, one full-time nurse, and one part-time nurse was \$4,575 during the fiscal year. Of this amount \$4,181 was for salaries.

Bret Harte Sanatorium.—The Bret Harte Sanatorium, located east of Stockton in Calaveras County, was constructed in 1927 for the care of incipient cases of tuberculosis. Through an agreement between the officials of San Joaquin and Calaveras counties, care is provided

⁹ Computed on the basis of approximately 10 days per infant delivered in the hospital.

¹⁰ A hospital census on July 24, 1930, showed 81 custodial inmates in the institution. This number multiplied by 365 is accepted as approximating the total custodial-days for the year.

¹¹ The hospital superintendent considered this a reasonable estimate.

¹² It should not be forgotten, however, that this figure now includes "fixed charges" (i. e., interest and depreciation on capital investment), although customarily these items are not included in costs per patient-day.

¹³ Minutes, Meeting of Board of Directors of County Medical Society, April 23, 1928.

for the patients from the latter county which is assessed for one per cent of the cost of operation. The sanatorium is primarily a teaching institution and only those patients who are willing to cooperate toward this purpose are permitted to remain.

The Emergency Hospital.—The Emergency Hospital is supported through the city tax funds of Stockton. Anyone is eligible for first aid and in many minor cases care may be given by one of the three nurses employed. Certain badly injured patients may remain in the hospital overnight, nine beds being provided for this purpose. Other facilities include an operating room and two clinic rooms, and space is also provided for the dental clinic operated by the county health organization. The medical staff includes one permanent part-time member who appoints other practicing physicians in Stockton to serve without pay. Each member of the staff is nominally on call for six hours per day, the permanent member being called for serious cases or when no other member of the staff is available.

It was reported that the Emergency Hospital physicians after giving emergency treatment accept cases for private care only upon request of injured persons. However, during the interviews, certain physicians complained that the hospital did not call them in for their own patients and also criticized the lack of rotation in the emergency staff.

No fee is charged for the emergency service. During the year, care was given to 6,786 surgical cases and to 550 medical cases, and, in addition 3,703 dressings were applied. Of the surgical cases, 1,079 were due to industrial accidents for which no charge was made against the insurance companies. The total cost of operating the Emergency Hospital was \$15,635.

CLINICS—AND CLINICS *

A NEW (?) METHOD FOR INAUGURATING CLINICS

California Osteopathic Association
Office of the Legislative Director
400 Black Building
Los Angeles

February 8, 1932.

Dear Pastor:

In every community many children are now suffering for lack of proper health care because their parents are unable to pay for the services of a physician. To help meet this condition the Los Angeles Osteopathic Society, a division of the California Osteopathic Society, is ready to establish a number of free Child Welfare clinics. If your church has a room which could be used a few hours a week for this purpose, the Society will furnish competent physicians to conduct such a clinic. Diagnosis, treatment, health advice, and scientific instruction on diet will be included in the free service to be rendered.

We are ready to cooperate with you in this much-needed work. If you will fill out and mail the enclosed blank, we shall be glad to make an appointment with you for a conference at which the necessary details can be arranged. Or if you prefer, a telephone call to Tucker 9547 will serve the same purpose.

Yours very truly,
CALIFORNIA OSTEOPATHIC ASSOCIATION.
_____, D. O., President.
LOS ANGELES OSTEOPATHIC SOCIETY.
_____, D. O.
_____, D. O.
Committee.

Reply Blank—Please fill out and return. _____, 1932.

Los Angeles Osteopathic Society,
707 Detwiler Building,
Los Angeles, California.

The _____ Church will be glad to place at your disposal for a few hours a week a room in which a Child Welfare clinic can be carried on. I shall be glad to confer with your Director of Clinics regarding arrangements.

_____, Pastor
Address _____

* See, also, some editorial comments in this number of California and Western Medicine (page 252).

A BLOOD TRANSFUSION—WITH AN EXPLANATION OF ITS POWER

The Los Angeles Times of March 7 recently gave considerable space to a write-up of a blood transfusion to a California Evangelist of the gentler sex, whose name and experiences in recent years have occupied much space in some of the lay press. The blood transfusion was administered by two doctors whose names are found printed in the list of osteopathic licentiates, published by the Board of Osteopathic Examiners.

Some excerpts from the newspaper item referred to are here reprinted:

"_____, pastor of _____ Temple, was resting in the _____ Hospital last night after having received a transfusion of blood yesterday to correct a condition described by her physicians as secondary anemia, an ailment resulting from complete exhaustion.

The Evangelist, who collapsed in the temple last Sunday while attempting to deliver her fifteenth sermon during the course of a week, received a pint of blood in the transfusion, Doctors _____ and _____, her physicians, said. . . .

"Dr. _____ said the Evangelist was 'reacting normally to the transfusion' and will be able to leave the hospital tomorrow and appear at services in the temple Sunday, provided unforeseen developments do not occur.

"Mrs. _____ had the alternative of the blood transfusion or an enforced rest of at least a year,' the physician reported. 'She could not have continued with her work without one or the other. She had reached the point of complete physical exhaustion, from which she could only recover by either building fresh blood or acquiring some by transfusion. Should she fail to recover completely as a result of the transfusion, a rest of more than a year will be required.' . . .

"During Tuesday night hundreds of the Evangelist's followers prayed in watches at the temple for her recovery. Yesterday morning, while the transfusion was in progress, the entire congregation offered prayers for the operation's success, the majority going to _____ Temple to pray."

TWENTY-FIVE YEARS AGO*

EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Volume V, No. 4, April 1907

From some editorial notes:

We Aid Quackery.—Especially to those few physicians who have reproached the state journal for the amount of space it has devoted to the condemnation of nostrums, do we commend a careful reading of an address by Mr. Bok of the Ladies' Home Journal, reprinted in this issue from the Journal of the American Medical Association. In the last five years we have printed thousands of words, pages and pages of matter, condemning the ignorance of the physician who will prescribe for his patient a substance of unknown composition. And yet some of our members have continued on their criminally ignorant course. We should like to know how any physician can excuse himself for using _____, for instance, one of the rankest of nostrum frauds which, with the passage of the Food and Drugs Act, stopped using acetanilid and substituted therefor phenacetin!

Opsonic Theory.—The field opened by the opsonic theory of Wright and others is so vast as almost to paralyze speculation. As the technique required is somewhat complex and delicate, actual results obtained by following out the natural lines of the theory must necessarily come to us but slowly. While much of the medical press of the world has given considerable space to discussing the opsonic theory and its possibilities, we have thus far avoided the discussions and have awaited further developments. Euthusiasts here and there have claimed unlimited possibilities and almost unlimited probable cures as the natural sequence of the development of Wright's work and theory; but it remains to be seen how elaborate and

* This column strives to mirror the work and aims of colleagues who bore the brunt of state society work some twenty-five years ago. It is hoped that such presentation will be of interest to both old and recent members.

far-reaching the actual results will be. Elsewhere in this journal we take pleasure in presenting a couple of papers which set forth clearly and briefly the fundamental principles of the opsonic theory and the technique.

Protect the Helpless.—Let us hope that the thirty-seventh annual meeting of the State Society, which is to be held at Del Monte this month, will not come and go without seeing some vigorous expression of the paramount necessity for taking public health institutions out of politics. If we sit quietly by and make no effort toward the education of our lay citizens in those matters of general public interest where information should come from our professions, we have but poorly fulfilled our duty toward the community. The time has come when we cannot blind ourselves to the fact that we owe something more than quiescent residence to the people of the place in which we abide and make our living. *City and county health officers and boards of health should not be appointed for political reasons, but for professional fitness*, and the voters should be told why this is so and what it means to the citizens to have it so. . . .

From an article on "The Physician and the Nostrum" by Edward Bok, Editor of the Ladies' Home Journal, Philadelphia.

During the four years that we have been engaged in the work of arousing public interest in the evil of "patent medicines" it has been my pleasure, in common with others, to have received hundreds of approving letters from physicians all over the country and scores of complimentary resolutions from medical bodies. . . .

From an article on "Opsonic Technic" by Lewis Sayne Mace, M.D., San Francisco.

The method of estimating the opsonic content of blood serum, elaborated by A. E. Wright of London, is briefly as follows: . . .

Doctor Evans: I think we ought to congratulate Doctor Mace on the degree to which he has perfected this technique. No one knows, except those who have tried it, the discouragements met with in this work. There are few points in the technique where he differs with Wright. . . .

From an article on "The Barlow Medical Library of Los Angeles" by George H. Kress, M.D., Los Angeles.

California physicians, both north and south of the Tehachapi—in the recent dedication of the Barlow Medical Library of Los Angeles—have occasion to doubly congratulate themselves. One, because Los Angeles, California, and the whole Southwest thereby came into possession of the most substantial library building west of the Mississippi, and two, because the donor of the gift was not, as is usually the case, a layman with large private means, but in this instance a younger member of the Los Angeles profession, who is in active practice in that city. . . .

The building and equipment of the institution cost the donor, Dr. W. Jarvis Barlow, professor of clinical medicine in the College of Medicine of the University of Southern California, more than \$30,000. The control of the institution he turned over to a board of trustees elected by the patron members. . . . The building itself is of a dignified Grecian type, and is one solid mass of cement, the interior finish being of highly polished oak.

The institution has been called the Barlow Medical Library by the Board of Trustees and starts its career of active work with the five thousand or more volumes which were on the shelves of the library of the College of Medicine of Southern California. . . .

The building has been erected at 740 Buena Vista Street, and is opposite the buildings of the College of Medicine of the University of Southern California and becomes part of that institution's properties.

DEPARTMENT OF PUBLIC HEALTH

By GILES S. PORTER, M. D.

Director

State Board of Public Health Reorganized.—The terms of Dr. Robert A. Peers of Colfax and Dr. Fred F. Gundrum of Sacramento having expired, Honorable James Rolph, Jr., Governor of California, appointed in their stead Dr. Gifford L. Sobey of Paso Robles and Dr. Junius B. Harris of Sacramento. Doctor Peers and Doctor Gundrum have served continuously as members of the State Board of Public Health since 1915 and the services that these doctors of medicine have given to the state cannot be measured in monetary terms.

Doctor Harris is a graduate of the Stanford University School of Medicine and has practiced in Sacramento continuously since 1908. He is president of the California Medical Association and stands most high in his profession. He will bring a wealth of experience to the service of the State Board of Public Health.

Doctor Sobey is a graduate of the University of California Medical School and has practiced continuously in California since 1907. He formerly practiced medicine in San Francisco, but has been located for many years in San Luis Obispo County, where he stands high among the members of his profession.

At its regular meeting, held in San Francisco February 13, 1932, the following officers of the State Board of Health were elected: Dr. John H. Graves, San Francisco, president; Dr. Edward M. Pallette, Los Angeles, vice-president. The other members of the board, in addition to Doctor Harris and Doctor Sobey, are Dr. William R. P. Clark of San Francisco, Dr. George E. Ebright of San Francisco, who has been a member of the board since 1915, and Dr. Giles S. Porter of Los Angeles, who is director of the California Department of Public Health.

Carbon Monoxid Poisoning: Symptoms of Poisoning by Gas.—The United States Bureau of Mines has done much work in determining the effects of carbon monoxid on the human body, and if you are particularly interested in the technical side of this work, it is suggested that you read Public Health Bulletins Nos. 186 and 195, published by the United States Treasury Department, Public Health Service, and Reprint No. 748 of the Public Health Reports of May 12, 1922, pages 1127 to 1142. You will be particularly interested in knowing that three surgeons of the United States Public Health Service, Dr. R. R. Sayres, Dr. William J. McConnell and Dr. R. B. Meriwether, were the subjects on which tests were made to determine the physiological effects of exposure to low concentrations of carbon monoxid. These doctors were exposed to low concentrations of carbon monoxid for as long periods as six hours. The tests show that at the start the doctors were in good condition, and that as the time passed on the following symptoms were observed: At first there was a slight tightness across the forehead, then yawning, and again slight tightness across the forehead, the eyes hurt, then there was a drowsiness, a shortage of breath, fingers were cold, slight dizziness, with all symptoms exaggerated on going up stairs and palpitation and pumping were quite noticeable.

The symptoms after the test were: Slow in acting, dull nerves, did not sleep well, headache increased after walking, severe headache all night, throbbing headache, did not feel like working, and dull and irritable next day. The above tests were made in very low concentrations of carbon monoxid from 18 to 4.2 parts in ten thousand, and indicate what might be found in a home where there was a slight leak of a carbon monoxid gas or in a garage where men are working around running automobile engines with poor ventilation.

In greater concentrations the effect may be almost instantaneous, and the individual may become unconscious and die very quickly.

The United States Bureau of Mines has made tests which indicate that the ordinary gasoline engine exhaust contains about $7\frac{1}{2}$ per cent by volume of carbon monoxid, in some cases running as high as 12.9 per cent. As very low concentrations of carbon monoxid in the atmosphere are sufficient to cause death, where the exposure is extended, and when the concentration is increased the time of exposure necessary to cause death is correspondingly reduced, it is very essential that no one stay in a carbon monoxid atmosphere. No gasoline burning engines should be operated where the exhaust from the engine is not carried away from all those who may be working in its vicinity.

New Form of Death Certificate Issued.—A new form of the standard certificate of death has been issued by the Bureau of Vital Statistics of the California Department of Public Health. A number of changes have been made which make the certificate more explicit in the provision of essential information. The new form makes provision for clarifying the principal cause of death and the contributory cause of death. The old form of certificate made the coding according to cause of death very difficult, since it was often impossible to determine which was the principal cause and which was the contributory cause. The new certificate serves both the physician and the coroner. Heretofore, a separate form was issued for the use of coroners. The new form serves the dual purpose.

Considerably more information relative to occupations involved is required upon the new form. Considerably more information is also required relative to deaths due to violence. Provision is also made for more detailed information relative to nationality of decedents.

The new form of certificate has been distributed to all local registrars of vital statistics and all deaths for the calendar year are supposed to be recorded upon the improved certificate.

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA

By CHARLES B. PINKHAM, M. D.
Secretary-Treasurer

News Items, April 1932

"Chiropractic services do not constitute 'medical services' allowed in industrial injury cases under the State's Workmen's Compensation Act, the Wisconsin Supreme Court has ruled. 'We are of the opinion that a chiropractor is not a physician as that term is used in the Act,' the decision written by Justice Chester A. Fowler declared. 'We are of the opinion that under the Act the only medical treatment contemplated is medical treatment administered by a physician.' Justice Fowler pointed out that the law does not allow a chiropractor to use the titles 'M. D.' or 'Dr.' 'Manifestly the statute does not consider Christian Science treatment as medical treatment, although it constitutes treatment of the sick and treatment of disease,' the decision said. 'Such treatment is "in lieu of medical treatment"; therefore it is not medical treatment. The same is true, under the Act, of chiropractic treatment.' The case involved a claim of Henry Costen, injured Green Bay fireman. The state Industrial Commission refused to allow him \$150 for chiropractic treatments, but was overruled by a circuit court" (*United States Daily*, February 16, 1932).

The San Francisco *Recorder* of February 6, 1932, published an article relating that the State Bar of California, with permission of Attorney General U. S. Webb, filed suit in the San Francisco Superior Court

in the name of the People of the State of California vs. Pacific Coast Automobile Association, the complaint alleging that said association employs attorneys who are members of the State Bar to practice law for its members, controlling and directing their employment; that because of this direction and control on the part of the corporation, the relation of attorney and client does not exist between the individual member and the attorney, the sole obligation of the attorney being to the association by which he is employed, thus depriving the member of the confidential relationship that the law and public policy contemplate. It is further alleged that the Pacific Coast Automobile Association is a corporation organized for profit, charging its members a fee for its services, guaranteeing to its members certain legal services, setting forth in various pieces of advertising matter and in its certificates of membership such service, which includes defending members, their agents and families, in all criminal proceedings arising out of the use of the automobile of the member, etc. This case is of particular interest at this time, in view of the much discussed question of corporations practicing medicine, and should this case be decided that corporations cannot practice law, the same theory will hold good that they cannot practice medicine. If the Superior Court so rules, as did Los Angeles Superior Court Judge Samuel R. Blake in the case of the People of the State of California on the Relation of Granville MacGowan, Plaintiff, vs. Medical Service Corporation, a corporation, Defendant, it is hoped that an appeal will be perfected so that a higher court decision may be obtained.

"The Doctors Clinic, Ltd., of Alameda County, filed articles of incorporation with the Secretary of State today. The clinic is to carry a \$25,000 capital authorization. Directors are Doctors Orta Edward Kuhn (M. D.), G. C. Nedry (M. D.), and E. M. Lundegaard (M. D.), of Oakland; Charles L. Tranter (M. D.), of San Francisco, and W. W. Giberson of Richmond" (*San Francisco Chronicle*, March 13, 1932).

"An echo of the tragic death of Alma Rubens, exotic film actress, was heard today with the refusal of the Federal Narcotic Bureau to compromise anti-narcotic charges against Dr. Jesse I. Citron, the dead actress' physician. Under existing laws, federal officers are permitted to accept cash settlements from persons accused of narcotic violation in lieu of prosecution in court. Harry J. Anslinger, commissioner of narcotics at Washington, D. C., announced yesterday, however, that his bureau had turned down this compromise settlement in Dr. Citron's case and that he would have to stand trial. Charges against the doctor have been pending in federal court since 1929" (*Los Angeles Herald and Express*, March 11, 1932).

"Dr. R. B. Armistead, Ventura, pleaded guilty to veterans' compensation fraud before Federal Judge Louderback yesterday and was fined \$1,000. Dr. Armistead formerly lived in Oakland, and was accused of making false affidavits of examination of two veterans for tuberculosis, upon which they obtained disability compensation. The doctor told the court that he was a former soldier and that his sympathies had been played upon in the case" (*San Francisco Chronicle*, February 28, 1932).

"Two doctors entered guilty pleas today in the veterans' disability compensation fraud cases when their trial was called before Federal Judge Harold Louderback. Dr. F. H. Van Tassell pleaded guilty to one count each in three indictments and Dr. A. H. Staples entered guilty pleas in two indictments. Judge Louderback continued the cases until Saturday for sentence when pleas for clemency will be entered by Attorney Leo Sullivan. The case of the other defendant was continued until April 1" (*San Francisco Call-Bulletin*, March 10, 1932).

"Ignoring their pleas for probation, Federal Judge Frank H. Kerrigan today sentenced Dr. J. R. Vasko and Elmer J. Johnson to jail after their pleas of guilty to charges of fraud. Dr. Vasko, Alameda physician, swore falsely to an affidavit which declared that Johnson, war veteran at Livermore, contracted tuberculosis before 1925. Dr. Vasko was sentenced to a month in the Alameda County Jail and fined \$500. Johnson was given three months in the county jail. Commenting on their pleas for probation. Judge Kerrigan said: 'These men have pleaded guilty on a charge of conspiracy to defraud the government. The probation law was enacted on the theory that it would prevent crime. The court believes that probation should not be invoked so often that the fear of punishment loses force'" (San Francisco *Call-Bulletin*, March 1, 1932).

According to reports from the office of the Los Angeles County Health Department, F. P. Brockett, M. D., Palmdale, on January 27, 1932, entered a plea of guilty in Lancaster to a charge of failure to report a case of tuberculosis, and was sentenced to pay a fine of \$100, of which he paid \$25 in cash, and \$75 was suspended, he "being placed on probation," it being further related that Dr. Brockett had been repeatedly warned for his failure to report births, etc., as required by the law. It has been suggested that inasmuch as Section 14, subdivision Fourteen, makes it compulsory for licensed midwives to comply with the vital statistics law and other health rules and regulations that an amendment should be introduced at the next session of the Legislature imposing (under the provisions of Section 14) the same regulation on licensed physicians and surgeons.

A recent investigation of a large number of narcotic prescriptions alleged to have been signed by a well known Oakland physician disclosed that sixty-two prescriptions for morphin sulphate had been forged by a nurse who was later reported committed to Spadra for treatment of her addiction.

D. D. Draper, optical technician, on February 23, 1932, in the Municipal Court of Los Angeles, pleaded guilty to a violation of the Medical Practice Act, and was sentenced to pay a fine of \$70 or serve thirty-five days in the city jail, sentence being suspended. Although he was not licensed to practice any system of the healing art in California, Draper was said to be distributing a business card whereon was printed: "Dr. Daniel D. Draper, Optical Specialist."

The eyesight swindlers have again started operating in California, they having been reported as recently defrauding Mr. J. K. Trimble, near Lemoore, and on March 17, 1932, were reported to have swindled a San Diego resident out of \$200 with the old eye dropper liquid application.

An information circular recently distributed by the Bureau of Narcotic Enforcement, Washington, D. C., complimented the Highland Hospital, Oakland, California, for its institutional strict regulation of the use of narcotics.

Ben S. Levis, alleged cancer specialist of Dallas, Texas, was reported arrested in Los Angeles, February 12, 1932, to be returned to San Diego on a bad check charge. He is reported to have distributed business cards in San Diego announcing himself as a "Physician and Surgeon." However, no record of his medical credentials has been found. According to last reports, he disappeared after filing a \$500 surety bond in San Diego.

Reports relate that Robert O. McClintock, alleged to be a lecturer on Tarzan and other mineral waters and claiming to be a physician but found to be a chiropractor, was recently arrested in San Diego on a

charge of violation of the Medical Practice Act, and that he hurriedly departed after putting up a surety bond of \$250, leaving his bondsmen "in the lurch." He is also said to be wanted in connection with other derelictions, among which is a report that he is wanted for obtaining money under false pretenses in Denver, Colorado, in 1929.

J. T. Nichols was reported to have pleaded guilty in the Justice's Court of San Diego on a charge of violation of the Medical Practice Act, and sentenced to serve sixty days in the county jail, sentence being suspended for six months on condition of no further violations.

On February 17, 1932, in the courts of Los Angeles, H. Allen Peters was sentenced to pay a fine of \$100 and serve sixty days in the city jail, jail sentence being suspended on payment of the fine.

The National Better Business Bureau, Inc., of New York recently called our attention to an alleged advertisement naming W. C. Van Loon as general manager of the Physicians' Remedy Company, P. O. Box 422, Huntington Park, Los Angeles, which "advertises a Medicated Goitre Bandage to cure goitre."

A recent advertisement carried in the San Francisco daily papers under the heading of "Physicians" and relating that the advertiser had had "twenty-five years of wide experience. Successful technique, 968 Page Street," led to the arrest and conviction of Alfred Rosewood in Municipal Judge Steiger's court, March 2, 1932, at which time it is reported that Rosewood testified that this advertisement in the various papers was for the purpose of antagonizing and irritating the scientists of the Carnegie Institute in that he, Rosewood, had developed a machine for determining the effect of the moon's rays upon earthquakes, etc. Rosewood is said to have claimed to have been associated with one of the old time men's specialist offices in San Francisco, and "admitted having been arrested in San Francisco about twenty-two years ago for violation of the Medical Practice Act."

E. Martin Ruccione, Los Angeles licensed chiropractor, reported as carrying a physician's sign on both front and rear of his automobile, pleaded guilty February 8, 1932, in the Municipal Court of Los Angeles to a charge of violation of the Medical Practice Act, and was sentenced to serve sixty days in the city jail, sentence being suspended on condition that he no further violate the Medical Practice Act. It is reported he denied practicing medicine, but on questioning admitted that he had orally prescribed epsom salts, agarol, biochemic remedies, etc., he stating he was taught this at chiropractic school, and that he thought he could do anything he was taught at that school.

K. Tanaka, San Pedro Japanese, advertising himself as a Divine Healer, Hydro Electric Therapist and Masseur, was reported to have pleaded guilty to a charge of violation of the Medical Practice Act, and sentenced to serve sixty days in the city jail, suspended for six months on condition that he change his method of business and advertising to conform with the law.

"Fong Wan, Oakland Chinese herbalist, today was acquitted in the court of Federal Judge Frank H. Kerrigan of charges of using the mails to defraud. The jury deliberated from 10 a. m. yesterday until 9 p. m. last night. Charges against Fong were, he communicated claims to 'cure' certain diseases and failed to do so. Testimony was introduced to show money was refunded to many uncured customers, and that many clients were satisfied" (San Francisco *Call-Bulletin*, March 11, 1932).



JUNIUS BRAINARD HARRIS
President, California Medical Association
1931-1932

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ACTIVITIES OF THE CALIFORNIA MEDICAL ASSOCIATION DURING 1931*

ADDRESS OF THE RETIRING PRESIDENT

By JUNIUS B. HARRIS, M. D.
Sacramento

DR. NICHOLAS MURRAY BUTLER, when asked a few months ago for a forecast of the year, said: "1932 will be a poor year for sonorous platitudes." In these strenuous and troublous days we all subscribe to the wisdom of this remark. Any enthusiasm of utterance on the part of your speaker must not be taken as opposition to the learned doctor's suggestion.

Reviewing the activities of the California Medical Association over the past year there appear certain noteworthy achievements in different departments which are here recognized and briefly commented upon. A résumé of these activities includes first, that of Medical Legislation.

MEDICAL LEGISLATION

There are eighty-five anti-science organizations in California. Pseudomedical cults and sects are yearly turning out hordes of graduates. The State Board of Medical Examiners almost daily learns of a new variety of drugless healer. In many parts of our state the irregulars outnumber the legitimate nonsectarian medical men. With these conditions existing it is not to be wondered at that regulatory laws inimical to the medical profession and public health are proposed on the floors of our state legislature. To combat the adoption of these pernicious measures is a part of the function of the Legislative Committee. Some of our membership have become disturbed at our legislative activities, harboring the unjustified fear that our active participation in the procedures of law-making is harmful to the ethics and dignity of our profession. While there is no desire on the part of any member of your Legislative Committee to emulate the uninspiring figure of the medical man who descends to the level of a ward politician, we should all clearly realize that unless with broad and unselfish vision we pattern the laws that affect our profession we will have recorded in the statute books and made for us by visionary zealots or crafty political manipulators regulatory measures incompatible with the regular practice of medicine in our state. Whatever natural antagonism we may have for this phase of our government, the subject of law making must manifestly be faced. Our duty to the public is to continue to act for them in our capacity as

citizens with special training to advise in the making of new legislation for the benefit of public health. There are medical men who believe that once introduced into the legislature there is nothing to prevent the passage of a law opposed to the best interests of medicine and public health. Many believe that political expediency alone decides the fate of all proposed legislation. Our conquest is one of education of senators and assemblymen. Were political expediency alone considered they could see only the five thousand or more votes that would register for or against them, but they look upon our Association as advisors with special training and in most part they vote on the merits of the measure before them; but whether a legislator is an open-minded, well-informed individual of the purest ideals or a self seeking leader of an ably financed group of professional exploiters he understands and responds to activity. The unified action of the membership of a compact, cohesive, fully organized Association under alert, forceful and understanding leadership can pattern the future laws relating to medical practice and public health. Noxious medical laws and sectarian interests cannot be put down by complacency, passive interest or negligent indifference. Eighty years ago Virchow said: "Should medicine ever fulfill its great end it must enter into the larger political and social life of our times."

LEGAL DEPARTMENT

The Legal Department, which has for many years been so ably administered by Mr. Hartley Peart of San Francisco and Mr. Hubert Morrow of Los Angeles, has during the year had more than usual matters come up before it. There have been the usual number of threats of cases and cases actually filed and our Legal Department was 100 per cent successful in all cases. Both Mr. Peart and Mr. Morrow have held many interviews and consultations with members of our Association where they were able to avert suits and bring the patient or his attorney into a proper understanding of the situation.

Other than this the Legal Department has devoted a great deal of its time this year in assisting in the organization of the Public Relations Department and in meetings of various committees to it related, and it has been called upon to inform, advise and counsel in relation to the operation of clinics, hospital associations, and county hospitals. There is no association where its Legal Department has made as comprehensive and exhaustive a study of the county hospital situation and laws relating to county hospitals and care of the needy indigent as has ours.

* President's address, sixty-first annual session of the California Medical Association, May 2-5, 1932, at Pasadena.

Several years ago Mr. Peart made a suggestion that could well be put forth at this time; that the American Medical Association be requested through its Legal Department to furnish to each State Association one or two complete digests of all cases against doctors; that such digests be furnished to State Associations only. And a further suggestion, although it means a tremendous amount of work for an already hard working Legal Department, is a compilation for the members of the California Medical Association of all of the laws, Federal and State, pertaining to the practice of medicine, including the rulings of various boards and commissions, suggestions as to procedures, etc. It is something that would have to be done with considerable care and would mean a great deal of effort; but once done it would aid our members very considerably. It would give them an understanding of the narcotic regulations and laws regarding postmortem examinations, Industrial Accident Commission procedures and numerous other vital matters in which doctors should be guided.

CALIFORNIA STATE MEDICAL LIBRARY

First proposed in 1928 by the editor of CALIFORNIA AND WESTERN MEDICINE, the ground work for a plan for a State Medical Library was worked out. A bill was proposed in the 1929 legislature which would establish such a library. At that session, however, considerable opposition developed and the proposed act died in Legislative Committee. When the Forty-ninth California Legislature convened in 1931 a new Library Bill, modeled somewhat after its predecessor, was presented. After a stormy voyage through the legislative channels it finally was passed and signed by the Governor, after which its constitutionality was attacked first by the Department of Finance, then by the Department of Professional Standards in separate actions. The Attorney General, however, ruled in our favor and ordered the designated funds transferred to the regents of the University of California. This initial payment has been made, and as the years go on the value and the bigness of the capacity for service which this State Medical Library, with its major branches at San Francisco and Los Angeles, will render the members of the medical profession and indirectly the people of California will be more and more realized by all citizens. The reward of achievement in bringing into being this splendid state institution causes us to already forget the trials and tribulations incident to handling its legislation. The author of this measure which is now on our statute books can be justly proud of contributing the year's outstanding advance in graduate medical education, the creating of an enduring evidence of his broad visioned and whole-hearted interest in his fellows.

DEPARTMENT OF INSTITUTIONS

In 1921 the Department of Institutions of the State of California was created and a director named thereof. With the exception of a temporary appointment held by one of the superintendents of a state hospital no physician has

held office of director until Governor Rolph conferred a definite honor upon our profession and established a policy for better custodial care of the state's charges when he appointed Dr. Joseph M. Toner of San Francisco as Director of Institutions.

Shortly after assuming office, Doctor Toner asked that our Association appoint an advisory group for his department. This was done. Seven men outstanding as psychiatrists, neurologists or hospital executives are now serving Doctor Toner in an advisory capacity.

It is the aim of this committee to raise and maintain at the highest level the standards in the state hospitals and custodial institutions. It is the duty of the Advisory Committee to give careful consideration to names and qualifications of the applicants for the position of superintendent of these institutions. If the superintendent of an institution is a well educated physician, progressive, a student and leader, experienced in psychiatry and with executive ability, it is safe to conclude that not only will the hospital be successfully conducted, but the entire medical staff will be raised to higher standards, operating primarily for the welfare of the patients and also in the interests of the taxpayers who provide funds for the carrying on of various institutional activities.

Those charged with administering the institutions of the United States repeatedly comment upon the increasing difficulty in securing qualified physicians for the staffs of the various institutions for mental patients. While there continues to be a disinclination upon the part of the young physician to become interested in institutional psychiatry as a career, the trend is toward more attractive hospital service by reason of better remuneration in respect to salaries and quarters, more modern diagnostic and treatment facilities, extra institutional activities and opportunities for serious research. As these improvements become more extensively supplemented by a reasonable stability in appointment and by opportunities for advancement, also by better facilities and methods in medical school psychiatric teaching, it is expected that the mental hospital service will become more attractive to the ambitious young physician. The Department of Institutions is making every effort to stimulate interest in the members of the medical staffs of the institutions to belong to and attend medical societies, regular and special, to which his associates on the outside usually belong.

Efforts are being made by the California Department of Institutions to induce the medical profession at large to become more interested in its problems and in a higher type of dynamic psychiatry, the first step being in establishing a neuropathological laboratory for psychiatric research. The following procedures have been adopted by Dr. J. M. Toner since his incumbency as Director of Institutions:

1. Training of attendant personnel by devising a curriculum entailing a series of twenty lectures to be given by the officers of the institutions.

2. Postgraduate course for nurses desirous of making a specialty of psychiatric nursing.
3. Proper organization of medical staffs.
4. Obtaining of advice and counseling with the State Medical Association in regard to appointment to the medical staff.
5. The establishment of a neuropathological laboratory for psychiatric research in conjunction with the University of California Medical School in San Francisco.
6. Plan to properly apply scientific medicine in relieving mental illness, thereby reducing the congestion in the state hospitals.

CANCER COMMISSION

The creation of the Cancer Commission of the California Medical Association is one of the distinct advances of the year. Through the formation of this commission our Association has definitely entered the field of cancer control with energy and financial support that has not heretofore been accorded any similar work. This commission is of the unanimous opinion that its first work should be the collection and codification of the most advanced work and opinion on the diagnosis and treatment of malignant disease. The policy of the commission is first to get under way a drive of professional education. All other aspects of the problem of cancer control are definitely put into the future until this work could be established. Excellent work has already been done in the state surveys of the various fields of cancer. After the first steps of their program are completed the commission will come to the development of public education and a program of clinical development. About three hundred members of our Association are actively co-operating with this commission. Never has a similar movement been given heartier approval or such statewide response. One of the factors tending to bring about this universal spirit of enthusiasm is the fact that our commission is strictly a California controlled body. There is a distinct feeling that the California Medical Association should undertake and be responsible for the activities of cancer control in California and a definite feeling of gratification among the members interested in this work that our State Association is to do this work rather than have it done for us by an outside agency. Our Cancer Commission will initiate its own program. The Association strongly feels that this important work of cancer control should be carried on and that they alone will be responsible for it. If the activities of this commission stimulate among the physicians and the public a wider interest in early diagnosis and treatment of cancer the time, energy and money will be well expended.

DEPARTMENT OF PUBLIC RELATIONS

At the Annual Session of the California Medical Association in 1931 the House of Delegates passed a resolution directing the Council to take the necessary steps to create a Department of Public Relations. The Council appointed a committee to study the matter of formation of this

department and directed the committee to report back to the Council not later than September, 1931. At this September Council meeting following the report and recommendation of the special committee a Department of Public Relations was organized by the Council consisting of the following standing committees of the California Medical Association: Public Policy and Legislation, Health and Public Instruction, Medical Economics, Hospital Dispensaries and Clinics, and the Cancer Commission. At the head of this department there was to be appointed a man known as the Director of the Department of Public Relations. The duties of the director were laid down by the original resolution and by the Council. There was also created an advisory committee known as the Committee of Public Relations to consist of the chairmen of the aforesaid committees and the president, the president-elect and the secretary of the California Medical Association. It was a difficult matter for the committee appointed for the purpose of selecting a properly qualified physician for this position, to procure a suitable director. Fortunately, after making an extensive survey of qualified physicians in our own state and considering names of many eastern physicians applying for the office, Dr. Walter M. Dickie consented to accept the position and serve until the meeting of the House of Delegates at the 1932 session. Dr. Dickie well represents the type of man necessary to carry out the manifold requirements of this position. The creation of the Department of Public Relations is the most important administrative step of the year. The responsibilities of this department are great and become heavier and more important daily. Much depends upon the judgment, experience and foresight of the director. To bring this department up to its greatest capacity for good requires hearty 100 per cent coöperation and support given it by the members of our Association. We should afford the director earnest assistance and vigorous backing in his decisions, giving him fully sufficient authority that he may advance his work without undue restrictions. The eyes of the entire organization are upon this director. Let us give generous and ardent support to him in his solution of the weighty problems which confront his office.

MEDICAL HISTORY

It is gratifying to note the advent of several outstanding works on California medical history written by members of our Association. The appearance of these books has stirred up a vast amount of interest in this alluring and important subject in different parts of our state. Let us take advantage of the impetus thus given to the pursuit of the study of our state medical history. Let us organize an historical section in each of our county units selecting from each society men who are interested in this work and best fitted to carry it on. This must be done at once so that there may be preserved all of the record of achievement, all of the color and romance that went with the practice of medicine in the early days of our Golden State.

1127 Eleventh Street.

CORRECTION OF LOSSES AND DEFORMITIES OF THE EXTERNAL NOSE, INCLUDING THOSE ASSOCIATED WITH HARELIP*

By V. P. BLAIR, M. D.
St. Louis, Missouri

NASAL abnormalities occur in a wide variety of forms and from a great many different causes. The somewhat prevalent idea that reconstructive surgery of the nose consists mainly of removing "humps" or filling in depressions is not justified if one considers the whole field of surgical indications that occur in a series of patients of any great number.

Gross defects require a great amount of work for the surgeon and disability for the patient, but an acceptable repair can usually be retained. On the other hand, the small or fancied defect, that is much larger in the patient's mind than in reality, may be extremely difficult of correction and bring continued unhappiness to the patient.^{1, 2, 3}

The surgical correction of these defects assumes a position of importance along with the correction of practically any other physical defect of the body. A nasal defect is often a real center of attraction, and, if too much attention is called to it, may be a serious handicap to education, normal social contacts, making a livelihood, and

* From the Department of Surgery, Washington University School of Medicine, St. Louis.

* Read before the general meeting of the California Medical Association at the sixtieth annual session at San Francisco, April 27-31, 1931.

even to the general health. All of these undesirable features may also occur in some patients who become obsessed with the idea that something is wrong with the shape of their noses, when there is actually little or no point in any surgical correction.

The diagnosis of the defect at hand and the evolution of a working plan for the surgical correction of nasal defects are of great importance. It is necessary to determine what parts are lost or displaced, and what tissues are available with which to make the repair. Accurate photographic records and impressions (plaster or wax) of the defect should be made and studied, and, if necessary, the repair should be carried out on the model and measurements made and patterns cut from these.

NASAL DEFORMITIES ASSOCIATED WITH CLEFT LIP AND PALATE

One of the worst, and perhaps the least mentioned, severe nasal deformities is that associated with cleft lips and palates. The deformity has been described previously^{4, 5} and the essential points are shown in Figure 1-A.

In the original operation there should be sufficient mobilization of the soft parts so that there may be fixation of the tissues with a correct level of the ala and with the formation of an adequate floor of the nostril. With these two objects fulfilled there will almost necessarily be correction of the deviation of the whole nose and columella (Fig. 1-B).



Fig. 1—(a)



Fig. 1—(b)

(a) The distortion of the nose in a single harelip may be extreme, and the correction of it is a most important step in the repair operation. The following description of the defect is taken from an earlier publication.⁴

"1. The ala is stretched into almost a straight band across the wide open bony cleft and the floor of the nostril is difficult to identify."

"2. The base of the columella lies obliquely, lower on the cleft side."

"3. The outer part of the lining of the vestibule has been displaced downward and inward."

"4. The vertical distance between the point of the ala and the vermillion border on the cleft side may be shorter than on the opposite side and, therefore, the mouth slit has an obliquity—which is the reverse of that of the columella."

"5. Though it may not be in evidence, usually enough tissue to make the nostril floor will be found lying below the base of the columella on the cleft side. This is usually supplemented by using all or part of a small triangle between lines of incision on the outer side of cleft."

"There is always some distortion of the lower lateral cartilage in almost every lip cleft; it is greater in proportion to the extent and width of the cleft and becomes accentuated with growth in the uncorrected case. The damaged cartilage slumps caudally, more so in its median than its outer part. As the skin of the tip and ala is closely adherent to the cartilage that side of the tip and ala will be correspondingly flattened. No attempt to restore the contour of the nose will be successful that does not correct the distortion and displacement of this lower lateral cartilage."

(b) This patient 2½ years later (photograph unretouched) has an almost normal appearance although, as always, defects can be found and measured. There was such marked deformity at the columella with slumping of the lower lateral cartilage that a triangle was taken out just above the border of the ala. A faint scar of this procedure can be seen.



Fig. 2—(a)

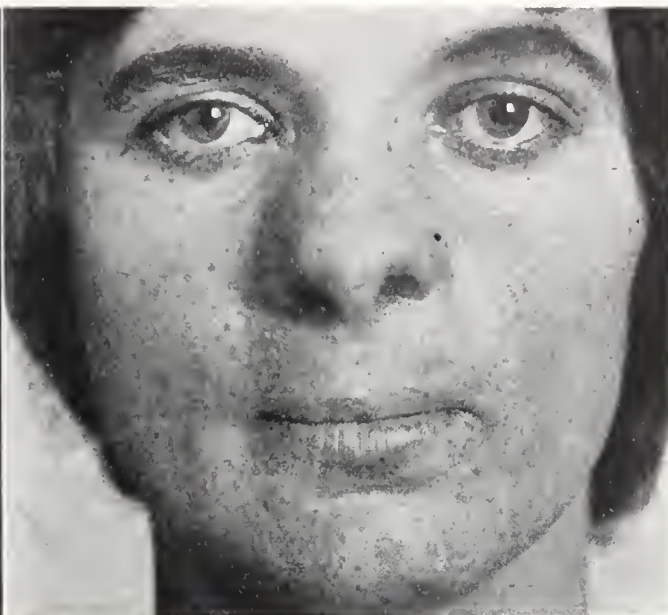


Fig. 2—(b)

SECONDARY CORRECTION OF NASAL DEFORMITIES
ASSOCIATED WITH HARELIP AND
CLEFT PALATE

If there has been no early correction of a harelip or if the correction has not restored a good nasal contour, there will occur a deformity that becomes worse and more solidly fixed with the growth of the face (Figs. 2-A and C). This deformity is perhaps the worst, when there has been an early forceful closure and wiring of the spread maxillae. The surgical correction necessitates an extensive procedure with complete freeing and rotating the nostrils into position. If there are not sufficient or properly placed teeth to maintain a normal profile of the soft parts, a dental prosthesis may be necessary (Figs. 2-B, D, and E).

*"Saddle Nose" (Cartilage Transplantation).—*Depression of the bridge of the nose may occur

from injury, septal abscess formation, following resection of the septum, and from destruction of the septum (and mucous lining) by specific disease.

In developing a plan for correction it must be decided (a) if there has been a loss of lining that needs replacing; (b) if the frontal processes of the maxilla require narrowing or removal; (c) if any prominence of the nasal bones themselves needs removal; and (d) if the tip of the nose, columella, or upper lip need advancing.⁶ The close study of wax or plaster casts, and the preliminary preparation of patterns for the transplant is probably a necessary step if the best results are to be obtained (Fig. 3).

For the transplant, autogenous fresh cartilage is used exclusively because it is thought that this is the safest material (Fig. 8).



Fig. 2—(c)



Fig. 2—(d)



Fig. 2—(e)

(a) and (c). Show marked distortion of the nose of many years' duration. Note that there is not much deviation of the bony nose. This may be due to the fact that the alar attachment to the cheek has been located high. The main deformity is the excess, separation, and slumping down of the lower lateral cartilages, both right and left.

(b) and (e). Unretouched photographs taken after two reconstructive operations and a dental restoration. The first one corrected the lip and vermillion border, and the nostril was rotated into fair position by splitting the columella throughout its length. This gave the correction shown in (d). The lip is retruded because there are no teeth behind it.

At the second operation the lip was partly opened, the covering of the nose was freed halfway up and turned up as a flap, by an incision clear across the alae and tip. The lower lateral cartilages were reduced in size and sutured symmetrically. The lip is held forward by a dental prosthesis.



Fig. 3—(a)

Fig. 3—(b)

(a) Markedly flattened and widened nose, the result of a fracture. The plan of correction was determined on a plaster cast, and patterns for the size and shape of the transplant were cut in lead from sections of the modeling clay used in building up the defect.

(b) Unretouched photo taken one month after operation. A section of the seventh costal cartilage was removed, and an extra piece was planted under the skin of the epigastric region for later use if necessary. The piece for transplanting was cut to the shape of the lead patterns previously determined.

An incision was made on the inside of the right nostril about two millimeters from the border. From here the entire covering of the nose was freed from the dorsum. The nose was narrowed by freeing the frontal processes from the maxillae with a chisel. The transplant was inserted through this opening, and held in place with two mattress sutures on each side through the covering and the deeper tissue of the nose. A light pressure dressing was applied to the nose and face for forty-eight hours, after lightly filling the nostrils with rubber tubes through the inferior meati and vaseline gauze above.



Fig. 4—(a)

Fig. 4—(b)

(a) Marked dorsal prominence on a girl with otherwise small pleasant features. This was thought to have been the result of an early fracture, although there was no very definite evidence of it.

(b) Unretouched photograph after removal of the prominence, done with a chisel introduced through an incision just inside the right nostril. The frontal processes of the maxillae were loosened and the nose narrowed at the same time.

"Hump Nose."—The aquiline nose may occur fittingly as a family or racial characteristic and should rarely require correction. However, if a marked dorsal prominence occurs on a small girl's or woman's nose, it is an unnecessary absurdity. The removal of a dorsal prominence is usually simple, and it affords such marked improvement in appearance that there is seldom any reason for not carrying out the correction (Fig. 4).



Fig. 5—(a)



Fig. 5—(b)

(a) Shows clean healing of tip of nose following an automobile accident.

(b) Unretouched photograph taken two months later. The covering, ala and columella have been reconstructed with a delayed forehead flap. This full covering is thought to give a better appearance than attempting to make a small repair of the tip alone.

The pedicle has been returned to the forehead and the defect covered with a thick split graft. Ten days postoperative.



Fig. 6—(a)

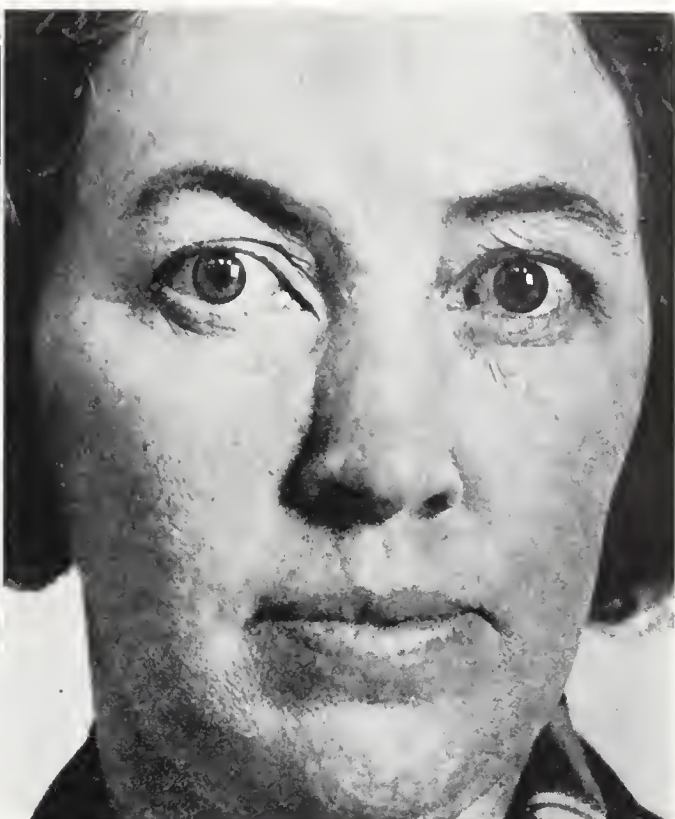


Fig. 6—(b)

(a) and (c). Defect of full thickness of nose following the use of a cancer paste.

(b) and (d). Unretouched photographs taken four months after operation.

The lining of the defect was made from small delayed flaps surrounding the defect. The wide area of covering supplied was made to obtain normal contour.

The pedicle was returned to the forehead, and the defect covered with a thick split graft.

Here again careful preliminary study should be done, preferably with a cast. It is frequently impossible otherwise to determine whether or not it will be necessary to move in or remove part of the nasal processes.

If there is a high prominence and a depression lower down, it may work out so that the resected prominence may be transplanted into the depression.

PARTIAL LOSSES AND RECONSTRUCTION

It must be remembered that a sufficient foundation must be present or must be supplied, and that adequate lining is almost as important as external covering.

For restoring losses of any size, pedicle flaps from the forehead are used almost exclusively. The forehead tissue and skin is so superior to any other available that it is used regardless of the added facial scar. The pedicles are returned to accurate position, and the defect is covered with a thick split graft.⁷ These grafts give ultimately as good surface as full thickness grafts. The details of repair are illustrated in Figures 5, 6, and 7.

TOTAL RECONSTRUCTION OF THE NOSE^{3, 8}

The main causes of total loss or destruction of the nose in our series have been cancer and its treatment, syphilis, tuberculosis, one undiagnosed necrosis, automobile injuries, bites of animals and humans, fights, paraffinomas, burns, excessive irra-



Fig. 6—(c)

Fig. 6—(d)

diation, and one case of necrosis several years after an implantation (elsewhere) of some metal for a depressed bridge.

The diagnosis in this group should include a study of the surrounding field to determine, for example, if any further disease or new growths persist. If the destruction has been from a basal cell carcinoma, extreme care should be taken, and, if necessary, further treatment or destruction done. In this field basal cell growths are notoriously apt to return. It is also a field for the occurrence of mixed types of growths, the basal-squamous carcinomas. If one gets in the midst of a repair and finds a recurrence deep in around the pyriform fossae or clear down along the wall of the nose, the work will either have to be delayed

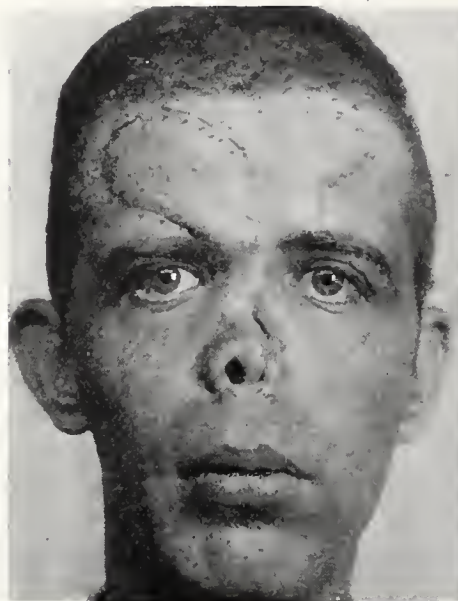


Fig. 7—(a)



Fig. 7—(b)

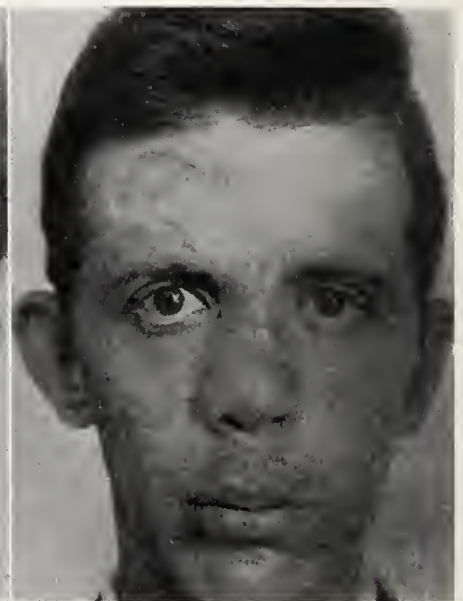


Fig. 7—(c)



Fig. 7—(d)



Fig. 7—(e)

(a) The defect includes both lining and covering and almost complete loss of the septum. Forehead flaps have been made according to patterns determined from study of a built-up plaster model. The flaps are allowed to remain in place on the forehead for three weeks.

(b) The flap on the left has been folded right down on its pedicle and anchored inside for lining. The flap on the right has been twisted around to form the covering. As these flaps are attached together throughout most of their area, the section of their pedicles must be done carefully and in stages.

(c) Final (unretouched) photograph taken six months later. The pedicles have been returned to the forehead and the remaining defect covered with a thick split graft.

(d) and (e) Defect and repair from the side. Note the great distance the tip of the nose has been let down. This is made possible by the use of the flap inside for lining.

or lost and further steps taken for the control of the growth.

In the planning of the repair practically all calculations are made by measurements of patterns from built-up plaster casts. The pattern has to fit the cloth available, and, if the forehead is very low, the nose is apt to be small or to contain some hair about the alae.

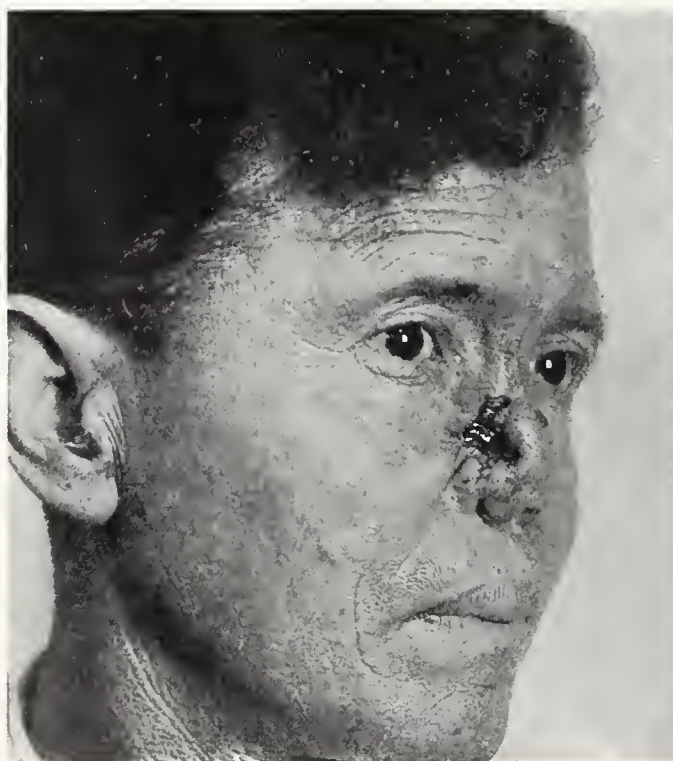


Fig. 8—(a)



Fig. 8—(b)

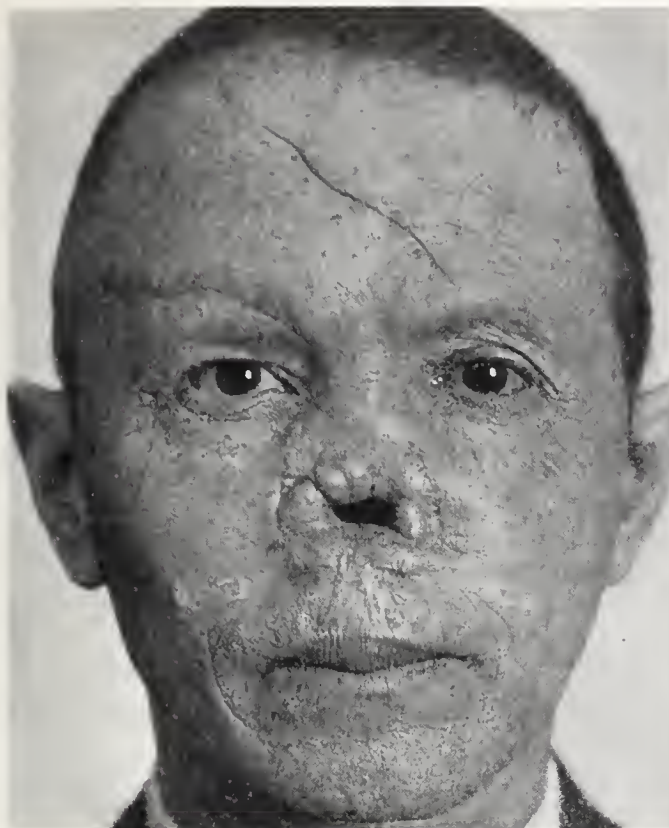


Fig. 8—(c)

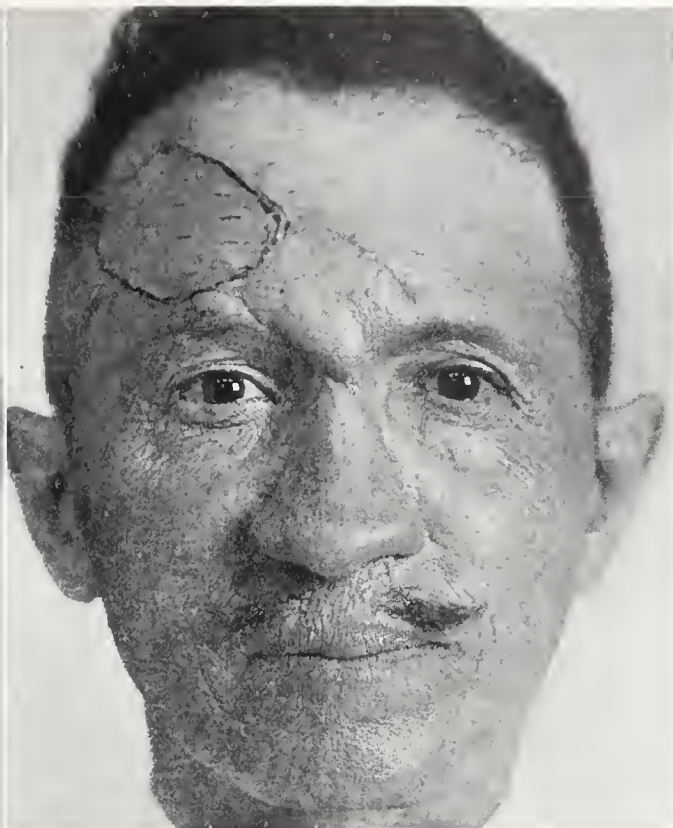


Fig. 8—(d)

(a) Necrosis and discharge of a piece of metal that had been put in the nose (elsewhere) many years before. A blow on the nose was the exciting cause of the trouble.

Much of the tissue of the stump of the nose was fixed by something from the metal, so that it was black and appeared like a slough that would not separate, or it might have been heavily infiltrated with silver.

(b) Final unretouched photograph. After this photo the prominence of the columella was corrected. The entire procedure was done under block and local infiltration.

(c) It was thought necessary to build out the floor of the nose and upper part of the lip and a forehead flap was proposed for it. But it was found that the alae of the nasal stump could be used, and they are shown here after having healed down in place.

The delayed flap for the nose is seen after healing has occurred on the forehead.

(d) Taken ten days after the pedicle has been returned to the forehead and the defect covered with a thick split graft.

The plan of repair is always, if possible, to use a delayed flap taken from the forehead, and to use skin surrounding the defect as lining of the nose by turning in small delayed flaps. Flaps from the neck, chest, and arm are used only if necessary.

The full details of a total repair are described under Figure 8.

Deformities Resulting from Fractures.—It is possible that most of the apparently unexplained severe nasal deformities are the result of untreated fractures sustained early in childhood. The mechanism is probably a crushing in of the nasal bones and frontal processes, with impingement on and perhaps fracture of the cartilaginous septum. If not corrected, this deformity frequently gets worse with marked distortion of the septum and deviation of the nasal bones. The patient illustrated in Figure 4 is thought to be an example of this condition.

Fractures later in life, if not corrected early, usually leave the nose in the position it has been carried to by the blow. If it is far over on one side, the frontal processes are cut loose (and the septum if necessary) thus mobilizing the entire nose. It is then carried to a little overcorrection, and held in place with a dental splint, or by a silver wire passed around the nasal bone and anchored to a tooth on the opposite side.^{3, 9}

If the nose is crushed in from the front and left there, the late correction is usually made by a cartilage transplant rather than by attempting to replace the bones and the septum. The patient in Figure 3 represents this condition.

Metropolitan Building, St. Louis, Mo.

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ABDOMINAL SECTION*

WITH PRESERVATION OF DIAPHRAGMATIC FUNCTION AND WITHOUT POSTOPERATIVE PAIN OR ADHESIONS

By JAMES F. PERCY, M. D.
Los Angeles

DISCUSSION by H. A. L. Ryfkogel, M. D., San Francisco; Charles T. Sturgeon, M. D., Los Angeles.

BECAUSE postoperative pain and intestinal adhesions are so often an aggressive and distressing factor in the practice of every abdominal surgeon, I found it necessary to work out a method for preventing them. The technique that I shall briefly describe absolutely does this. In addition, it is so simple as to border on the incredible. This is particularly impressive when the history of the efforts of surgeons and laboratory research to find a procedure that would obviate them is looked into. But none of these endeavors so far have proven to be either practical or of effectual value.

CRILE'S DICTUM

It is true numerous surgeons have advocated gentleness when invading the abdomen, notably Crile, whose dictum to "treat the tissues lovingly" has become a classic. But no one, so far as I have been able to learn, has told us anything about the quality, the degree, or described the nature of the technique of this "loving touch" which leaves this marvelous and miraculous membrane unscratched. The peritoneum always resents familiarity. This closed sac is the most untouchable region of the body. The cornea will permit more trauma without harmful reaction than will the peritoneum. But touch this satin-like membrane ever so gently with anything solid or fluid, and its surface layer of cells will swell and crack and the nature (anatomical and physiological) of the injured section will immediately be altered.

The character of these changes has been well worked out and need not be repeated here. Neither do we wish to tabulate the experimental and other observations that have been made in an endeavor to prevent the harmful reactions of the peritoneum to detrimental foreign body contacts following especially major abdominal surgery. Their number, character, and often ingeniousness, are legion.

POPE'S SUGGESTIONS

But I would not be loyal, however, to this, my adopted state nor to its scientific workers, if I did not mention one who was a former colleague of many of you and a constructive, scientific investigator and teacher. In 1914, and again in 1916, Dr. Saxton Pope^{1, 2} published his observations on the results following the employment of a two per cent sodium citrate combined in two per cent sodium chlorid solution as a method of preventing intestinal adhesions. But even this method was finally abandoned by its brilliant author. Another observation made by Doctor Pope and substantiated by him in the experimental laboratory of the medical department of the University of California, is not only of interest but

of great permanent value. In a personal communication, dated February 12, 1924, Doctor Pope called my attention to the pernicious results in the formation of intestinal adhesions following the routine employment of talcum powder on the surgeon's gloves. He referred to the experiments in which he had demonstrated this and also to the fact that he had taught it "in classes and debates, but had never published it." He said further that talcum powder "microscopically is a crystalline (or maybe crystalline) dust, irritating, and producing the fibrin deposit of a foreign body." He then added somewhat facetiously: "It is in fact a lost gem."

Doctor Pope closed his letter by saying, "We owe it to the patient to wash our gloves." In connection with this statement by Doctor Pope, it is well for us to recall that the surgeon who sterilizes his gloves in boiling water (wet method) automatically obviates this danger.

PRELIMINARY EXPLORATORY OPERATIONS

There is another significant change in the peritoneal cavity following an abdominal section that, in its practical bearings, is not only of scientific interest but, when taken advantage of as a planned procedure, may add immeasurably to the probabilities for a successful outcome of the surgeon's efforts.

Abdominal surgeons must have observed many times the increased toleration of the peritoneum when exposed anew following a previous section. For a number of years I have practiced and taught the practical value of a preliminary exploration on a patient who has an exceptional major abdominal problem to be met and overcome. This, be it remembered, is only for the one whose abdomen has not previously been explored. This preparatory procedure is practiced for two reasons: first, to ascertain the probable magnitude of the later surgery that may be required; second, and most important, to develop the innate resistance of the peritoneum for the proposed major surgery. It is a singular fact that practically nothing giving a clue to this experience of surgeons, following abdominal operations, is to be found in the literature of surgery. (A comparatively recent and impressive exception to this statement will be found in the John B. Murphy Oration in Surgery by D. P. D. Wilkie, M. D., Edinburgh, Scotland, on "Some Principles in Abdominal Surgery," *Surgery, Gynecology, and Obstetrics*, Vol. 50, pp. 129-138, January, 1930. The address by this distinguished surgeon confirms the observations related above. In addition, it contains much valuable supplementary information on methods of developing peritoneal resistance.)

OPERATIVE TRAUMA TO THE PERITONEUM

The balance of this paper will be based on the proposition that the only source of postoperative pain and the subsequent intestinal adhesions is operative trauma of the peritoneum. The most productive sources of this trauma are the faulty methods generally employed by surgeons in introducing gauze packs into the abdomen. Combined with this is the often unnecessary mauling

* Read before the General Surgery Section of the California Medical Association at the sixtieth annual session, San Francisco, April 27-30, 1931.

of the peritoneal edges of the abdominal wound chiefly by retractors and artery snaps.

The gauze sponges are commonly put in the abdomen through incisions much too small and often by sheer brute force. When the extreme vulnerability of this satin-like membrane to trauma is considered we realize the reaction can be nothing less than pain and adhesions. Abdominal packs employed in this way denude, or better from a descriptive point of view, file off the endothelial covering of both the parietal and visceral peritoneum, making possible, when these raw surfaces rub together, the "gas pains" and later the adhesions, when the fibrous deposit with its ferment encourages the peritoneal surfaces to cohere. Some of us also want these sponges, before placing them in the abdomen, wrung out of all but boiling physiological salt solution. To these customary instigators of postoperative pain and adhesions we should not forget to add the drying effects of the atmospheric air when it is permitted to suck in and out of the peritoneal cavity an uncalled for length of time. (In a short uncomplicated intrapelvic operation under spinal anesthesia with an expected negligible degree of trauma, this voluminous sponge technique could, under otherwise favorable conditions, be dispensed with.) Neither can we minimize, as an additional hazard, the escape of one or more isolated intestinal coils on the surface of the abdomen, the skin of which has been previously chemicalized in the preoperative preparation of the patient. Any one or all of these produce within the abdomen acute or chronic adhesive deformities after the incision is closed.

INFLUENCE OF CIRCULATORY FACTORS

There is another important phase of this technique aside from the one of preserving intact the normal anatomical and physiological functions of the abdomen following its closure which is not sufficiently stressed in the title of my paper. I refer to the importance of preventing, while the abdomen is open, the slowing up of the circulation in the posterior abdominal and thoracic veins, thus inevitably disabling the heart.

I believe few surgeons realize sufficiently that the instant air is let into this visceral cavity the rhythmical respiratory contractions of the abdominal muscles and the diaphragm, which play such an important rôle in the circulation of the blood, is lost. Under such conditions, and especially if the operation is prolonged, blood accumulates in the great posterior abdominal and thoracic veins because, I repeat, these two most important and efficient circulatory muscular units go out of commission with the opening of the abdomen.

When the heart has lost this almost indispensable support it gradually becomes fatigued and the circulation fails. At this point we frequently find the anesthetist attempting to whip it into better action with heart stimulants, often with disappointing if not disastrous results. The technique necessary for preserving the circulatory functions of the diaphragm and of the abdominal muscles following the opening of the abdomen is unbelievably simple.

THE VALUE OF THE SIMPLE LONG GAUZE SPONGE

The essential thing is the employment of a single long, dry gauze sponge to keep the liver and surrounding viscera crowded up under the dome of the diaphragm. (The sponge or pack is made from ordinary surgical gauze. I have found that a useful average as to length is fifteen yards (13.72 m.), with a width of nine inches (23 cm.). The latter is obtained by folding the gauze lengthwise four times.) When well done, this compensates for the removal of the tone of the abdominal walls. Important as subsidiary aids to the sponge technique is adequate spinal anesthesia with an added general anesthesia when relaxation of the abdominal muscles is not satisfactory, the Trendelenburg position and a completely expanded long abdominal incision.

The correct manner of introducing the sponge into the upper abdomen is the key to its value, not only as a pack in restoring the auxiliary circulatory functions of the diaphragm and abdominal muscles, but also, when placed without traumatizing the peritoneum in the slightest degree, it precludes the development of gas pains and the later dreaded adhesions.

The sponge must be made to do two things perfectly:

First, through a liberal abdominal incision, such part of it as may be necessary is employed to lift and to crowd the loose intestines from the pelvis and lower abdomen and the liver upward under the dome of the diaphragm (Figures 1 and 2).

Second, it must be packed completely across the upper abdomen, including the filling of both kidney pockets so that it will, while holding the intestines and stomach snugly under the dome of the diaphragm, compensate for the otherwise lost valve-like action of the diaphragm. The correct method of placing the long single sponge in the upper abdomen is the crux of the technique for preventing venous stasis in the posterior abdominal and thoracic veins, and for insuring and maintaining a painless and adhesionless postoperative belly. Reduced to simple descriptive terms it means that the sponge, while pushing the loose intestines upward from the lower abdomen, must not once touch the parietal endothelial cells in the slightest degree. This can only be completely accomplished by the surgeon and his assistants, by elevating the abdominal walls with their hands encased in talcum-free rubber gloves. In doing this the dry gauze,* I repeat, must not touch anything but the gloved hands and the intestines. In packing the intestines against the diaphragm it is important not to employ force sufficient to tear any part of the fixed portion of the mesentery. It is also necessary in order to obtain the largest possible exposure of the lower abdomen and

* Formerly the sponge was wrung out of hot physiologic salt solution. This moist method was abandoned and the dry sponge substituted after reading the description of the destructive action of salt solution on the cells of the peritoneum in the chapter, "Inflammatory Reaction of the Peritoneum," Vol. I, *The Peritoneum*, by Hertzler, C. V. Mosby Company. This chapter is also a mine of useful information on many phases of peritoneal adhesion lore.

pelvis, to set the sponge well under the intact upper abdominal wall. The novice in his first employment of this method usually fails to push the sponge upward as far as it can be placed, thus limiting his operating field below (Figures 1 and 2); when placed high it is usually proof against dislodgment should the patient have a spell of retching.

I want to reemphasize the ease with which the upper abdomen is protected from the harmful effects of the lowered temperature of the operating room by the sponge method just described. In addition, the moisture of the surface of the intestines, together with their warmth, and the normal temperature of the liver is maintained. These desiderata Crile insists are of preeminent importance for the general well-being of the patient whose abdomen is open.³

The same care and method must be employed in withdrawing the sponge, as was practiced in introducing it into the abdomen. The patient who, as a rule, after its placement and also during the major operative procedures, has required but very little additional anesthetic, is again etherized sufficiently to relax the abdominal walls. They are then elevated with the rubber-gloved hands as they were originally when the sponge was put in place, and it is removed over them. In doing this the abdominal walls must be gently lifted away from the sponge with the rubber-gloved hands. If ever so small a fraction of the gauze is pulled away while sticking to the peritoneum, the latter is denuded of its protective endothelium to just that extent. This unhappy situation always expresses itself as general postoperative abdominal distress or even as a frank pain. But unfortu-

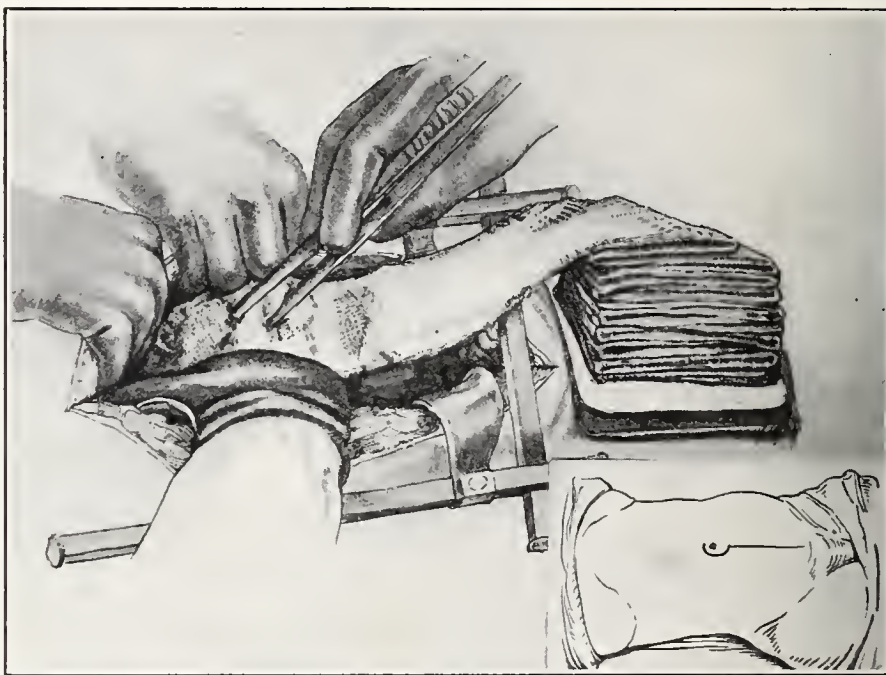


Fig. 1.—With the patient in the Trendelenburg position the long, dry gauze sponge is folded in order to facilitate its introduction into the abdomen over the rubber-gloved hands of the surgeon and his assistants.

nately the trouble does not end with the passing of the pain, following the administration of morphin. This trauma, be it ever so slight, becomes the foundation of the so often disastrous intestinal and parietal wall adhesions.

With the sponge out, the omentum is rearranged and the abdomen closed.

COMMENT

The surgeon who masters this simple technique in all of its practical possibilities is certain to make it his routine procedure in all of his future lower abdominal surgery. It will sustain the heart of his patient without fatigue or fear of failure, should the operation be necessarily prolonged for an unknown number of hours. The final results, both immediate and remote, if the operation has not otherwise violated the fundamental principles of good surgery, are: no shock, no vomiting, a soft painless belly, no first night wakefulness or wretchedness, no peritoneal reaction expressed by gas pains, rarely a need for even a small dose of morphin, a normal heart action throughout, and a comfortable convalescence with never postoperative adhesions; and on the part of the surgeon a new conception of a normal surgical convalescence following a major abdominal section.

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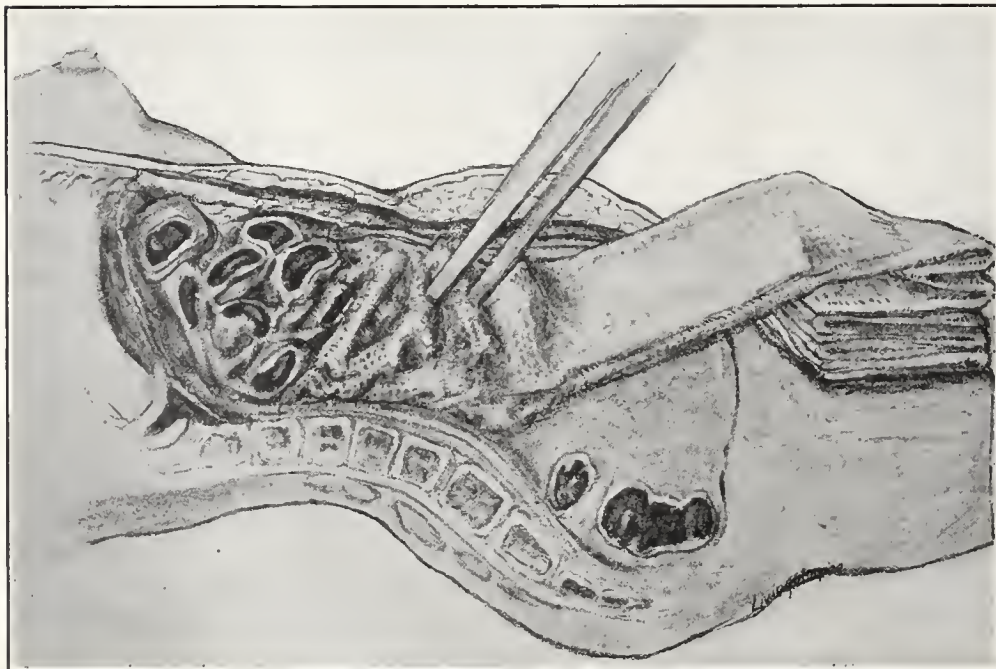


Fig. 2.—The object of this sponge is to pack the intestines against the diaphragm. In order to have it hold its position the sponge should be well set up under the costal cartilages. The kidney pockets should also be filled, without in any way traumatizing the endothelial cells.

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DISCUSSION

H. A. L. RYFKOGEL, M. D. (516 Sutter Street, San Francisco).—Doctor Percy's packing technique deserves careful attention.

The postoperative comfort of Doctor Percy's patients on whom he has performed his long cautery dissections for carcinoma is very striking, as I have often personally noted. His method of giving "loving care" to the peritoneum is based on a careful analysis of the factors involved.

There is no doubt that dry gauze does less damage to the peritoneum than does the cement-dissolving and infection-spreading wet sponge. Anyone who has used the single long pack realizes its greater efficiency. Operations under local anesthesia have taught us that irritation of the parietal peritoneum causes pain and must be avoided even though the patient be anesthetized.

Doctor Percy probably does not assert that contractions of the diaphragm cease on opening the abdomen, but rather that a theoretical rhythm between the contractions of the diaphragm and abdominal muscles disappear.

In the upper abdomen there is normally a sub-atmospheric pressure which, in spite of the descent of the diaphragm, is increased during inspiration because the upper abdominal capacity becomes greater when the lower ribs expand. It is possible that this varying negative pressure helps the circulation of venous blood in the abdomen. That free air or gas in the peritoneal cavity immediately travels to the sub-diaphragmatic region is a common clinical observation and, therefore, when the abdomen is opened the atmospheric pressure probably becomes positive. It is possible that Doctor Percy's pack by forcing the viscera against the diaphragm restores the normal pressure.

For many years I have quoted to my assistants another statement made by Hertzler in the chapter to which Doctor Percy refers:

"There is but one pack preferable to the dry pack in the abdomen; that is the one that remains in the dressing closet. If the portion of the organ only is exposed which is the object of operative attack, no pack of any sort is needed."

✽

CHARLES T. STURGEON, M. D. (1930 Wilshire Boulevard, Los Angeles).—Doctor Percy has brought out in a very logical manner the different steps by which a major operation can be performed with the minimum amount of trauma. There is very little that one can add and certainly nothing that one can criticize.

In all operations of the lower abdomen the patient should be placed in the Trendelenburg position while the anesthetic is being given. Usually by the time the abdomen is opened the intestines have gravitated toward the diaphragm, and it requires very little manipulation to place the protective pack.

The patient should be thoroughly anesthetized before the surgeon starts the operation, for probably one of the greatest causes of damage to the peritoneum is the attempt of the surgeon to forcibly replace the small intestines into the abdomen or to pack away the intestines toward the diaphragm while the patient is straining.

As mentioned by Doctor Percy, very little anesthetic should be used during the course of the operation, but a point to be emphasized is that the patient should be thoroughly anesthetized before any attempt is made to remove the packing, because if the patient should strain while the gauze is being removed the intestines will be dragged out on the abdominal wall

and will again have to be forcibly returned into the abdominal cavity.

A point which Doctor Percy did not mention but which I am sure he recognizes, is that in closing the peritoneum the cut edges should be everted, thereby preventing the possibility of tags projecting into the peritoneal cavity and lessening the possibility of post-operative adhesions.

Doctor Percy should be congratulated in bringing before the surgical section a technique with which every surgeon should be thoroughly familiar.

SODIUM AMYTAL—ITS VALUE IN SEASICKNESS

By HAROLD HAMILTON, M. D.
Honolulu, Hawaii

AT the suggestion of the medical director of the Matson Navigation Company, a study was made of the value of the more commonly used drugs in the prevention and treatment of seasickness, with special attention being directed toward sodium amytal.

PROCEDURE ABOARD SHIP

During the past year sodium amytal has been given very extensive trials at sea. During this period of time upward of four hundred cases of seasickness were studied as regards their reaction to treatment with this drug. For the most part the cases treated were between the ages of sixteen and sixty. The following doses apply, therefore, to adults. At the same time patients treated with sodium nitrate, bromids, belladonna, members of the coal-tar group, and veronal, were observed very carefully for the purpose of comparing their clinical characteristics and efficiency with that of sodium amytal. Special attention was paid to the value of hyoscin hydrobromid in the treatment of seasickness. It might be mentioned at this point that up to the time of the introduction of sodium amytal, hyoscin hydrobromid was, in our experience, the most valuable drug with which to prevent and to combat seasickness; veronal was a close second.

DOSAGE AND METHODS USED

As far as was possible, means were taken to induce potential patients to take the drug about an hour prior to the sailing of the ship, and when so used, it was administered in capsule form, one capsule (3 grains or 0.2 gram) being remarkably efficacious as a prophylactic. If subsequent medication became necessary, a second capsule was given about two hours after the first. The results were almost invariably satisfactory.

Most of the patients were seen, however, after the ship had sailed and after the symptoms of seasickness were well under way. It was in these cases that the effect of the sodium amytal were most marked and satisfactory, and it was the stage of the condition in which relief is most welcome to the patients. Truly they wished themselves dead, and usually had long since given up all hope of relief. In these cases an initial dose of 3 grains or 0.2 gram is given, followed by a similar dose two hours later. Symptomatic relief was noted in approximately 70 per cent of the cases in from

fifteen to forty-five minutes after the preliminary dose. Clinically, the typical patient falls very shortly into a light sleep from which he may be easily aroused. The condition lasts from three to four hours. From this partial narcosis the patient awakens feeling markedly refreshed, free from nausea, and in a surprisingly number of cases actually demands food. It is noteworthy that the administration of the drug is not followed by the mental depression so frequently seen after bromid or veronal medication.

In cases where nausea is very severe and emesis almost continuous, it is obvious that the drug cannot be given in capsule form, for it is ejected before its pharmacological action can have taken place. On the other hand, iced bitters and certain stomachics are fairly well tolerated and retained by patients with fairly severe nausea, and the administration of the drug in ice water permitted retention for sufficient time for it to take effect. The administration in this way in ice water was found to be vastly superior to its administration in milk or syrups, and it might be remarked in passing that we are coming to use this method in an increasing number of cases, almost to the exclusion of the capsule. Emphasis must be placed on the importance of using water well iced; any suggestion of a warm solution is not well tolerated.

A small percentage of the victims of mal de mer present as the sole symptom a more or less severe degree of vertigo. These patients are usually quite comfortable while recumbent, but become very dizzy upon attempting to walk about. In these cases one capsule (3 grains or 0.2 gram) administered in solution in ice water suffices to clear up this condition in a very satisfactory manner.

The intravenous use of sodium amytal, which is finding a broad field of usefulness in surgery and obstetrics, has not as yet been attempted in this study. It does, however, open up a possible avenue of treatment in those rare cases of seasickness in which the patient is actually dangerously ill.

The rectal administration of sodium amytal has proved of value in other conditions, and it is easily seen that in selected cases this method should find a place in the treatment of mal de mer. It may be given either by inserting the capsule as a suppository or by dissolving its contents in a little water and injecting the solution into the rectum.

CONTRAINDICATIONS

Contraindications are singularly few. It should be given very cautiously to elderly people with generalized arteriosclerosis and hypertension. Should vascular depression manifest itself in an exceptionally sensitive patient, three-eighths to three-fourths grain (0.025 to 0.05 gram) ephedrin sulphate and seven and one-half grains (0.5 gram) caffeine sodiobenzoate may be administered hypodermically. Sodium amytal should not be given to patients known to be hypersensitive to barbituric acid derivatives. In our series we have yet to encounter a case in which the slightest unfavorable reaction was noted.

SUMMARY

1. An extensive study was made of the value of sodium amytal in seasickness.
2. Comparisons were made between sodium amytal and several widely employed remedies for seasickness.
3. In order of efficacy, both as prophylactic and curative properties, we have (a) sodium amytal; (b) hyoscin hydrobromid; and (c) veronal.
4. One capsule (3 grains or 0.2 gram) repeated, if necessary, in two hours, was found to be remarkably effective.
5. Administration in solution in one ounce of ice water was found to be the method of choice.
6. The chief contraindications are the chronic degenerative processes, particularly in the elderly. It should not be given to those known to be hypersensitive to barbituric acid derivatives.
7. Ephedrin sulphate and caffeine sodiobenzoate may be given hypodermically should vascular depression manifest itself in an exceptionally sensitive patient.
8. The intravenous and rectal methods of administration are suggested for selected cases.

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WHAT TO EAT ON GOING TO BED*

By LEO L. STANLEY, M. D.

AND

GORDON L. TESCHER

San Quentin

THE hostess is often concerned with what she should serve to her guests after an evening of bridge. It has been demonstrated that the taking of a cup of coffee on retiring insures a more restful night than the taking of hot water or going to bed "on an empty stomach."[†]

This report is on some experiments which were made to find out whether the average individual rests better after eating a steak on retiring or devouring a quarter of a pound of cake, or taking ice cream, butter, or other fatty foods.

APPARATUS

An apparatus similar to that for determining the effects of coffee on sleep was used. (See CALIFORNIA AND WESTERN MEDICINE, May 1931, page 359, for illustrations of apparatus used.)

This consisted of beds suspended over pneumatic bulbs in such a way that any movement of the subject was transmitted by rigid air-filled tubes to the recording kymograph. The apparatus is graphically described in Figure 1 of above referred to illustrations.

Figure 2 shows the arrangement of the bed suspended over the pneumatic bulb which in turn is connected by means of the air-filled tube to the kymograph (Figure 3), as per illustrations noted above.

*From the Medical Department of the California State Prison at San Quentin, California.

†"The Effects of Coffee on Sleep" by Stanley and Tescher, California and Western Medicine, Vol. 34, No. 5 p. 359, May 1931.

MEN SELECTED FOR THE TESTS

Seven men prisoners were selected for the tests, as follows:

	Age	Weight	Occupation	Crime	Time Served
Subject 1	20	130	Lab. tech.	Murder	3 years
Subject 2	38	215	Druggist	Robbery	4 years
Subject 3	47	126	Doorkeeper	Kidnaping	10 years
Subject 4	31	173	Surg. nurse	Murder	8 years
Subject 5	42	172	Surg. nurse	Murder	4 years
Subject 6	33	130	Lab. tech.	Murder	9 years
Subject 7	30	140	Lab. tech.	Murder	11 years

PROCEDURE

For ten days, January 18 to January 30, 1931, a normal was established.

During the next ten days, January 30 to February 9, a quarter of a pound of cake was given to each of the seven subjects on going to bed.

For ten days, February 9 to February 20, a quarter of a pound of eggs or meats was given to each of the seven subjects before retiring.

During the last ten days of the experiment each of the seven subjects was given one ounce of butter on toast at bed time.

The movements during the sleeping periods for each of these three procedures were recorded on the kymograph and subsequently counted.

These figures are shown in the following tables:

CHART 1.—Average Number of Movements Per Hour on Normal Diet

Date	Sub-ject 1	Sub-ject 2	Sub-ject 3	Sub-ject 4	Sub-ject 5	Sub-ject 6	Sub-ject 7	Aver-ject age for Group
Jan. 18	4.7	11.6	3.0	11.1	11.5	4.9	7.2	7.7
Jan. 19	3.4	11.1	4.6	11.2	12.5	4.1	8.4	7.9
Jan. 20	6.2	6.0	4.0	13.2	12.5	3.6	5.9	7.5
Jan. 21	4.1	9.0	3.7	9.9	11.3	4.4	8.1	7.2
Jan. 23	8.1	9.8	6.3	5.6	14.5	10.1	7.5	8.8
Jan. 24	5.0	7.7	5.1	11.3	8.5	3.0	6.4	6.7
Jan. 25	5.7	8.8	7.1	6.3	12.3	3.5	9.3	7.5
Jan. 26	4.8	12.1	.....	12.1	10.3	3.7	5.4	8.0
Jan. 27	4.0	14.3	3.2	15.4	11.4	5.0	8.2	8.8
Jan. 29	6.6	11.2	3.3	11.2	10.1	5.3	6.7	7.8
Period								
Average								7.89

CHART 2.—Average Number of Movements Per Hour on Carbohydrate Diet (One-Quarter Pound of Cake)

Date	Sub-ject 1	Sub-ject 2	Sub-ject 3	Sub-ject 4	Sub-ject 5	Sub-ject 6	Sub-ject 7	Aver-ject age for Group
Jan. 30	6.4	10.0	3.8	16.0	9.2	5.5	8.7	8.5
Jan. 31	.....	8.3	4.1	16.4	11.2	5.5	5.6	8.5
Feb. 1	7.7	9.1	4.0	.....	9.0	6.0	7.7	7.3
Feb. 2	7.8	7.9	4.4	6.7	10.6	5.0	10.8	7.5
Feb. 3	6.6	12.3	5.8	10.4	10.2	6.2	7.8	8.4
Feb. 4	6.4	12.1	5.4	9.4	10.9	6.2	10.7	8.6
Feb. 5	6.3	11.7	6.4	10.9	10.0	6.5	9.6	8.8
Feb. 6	7.2	11.8	5.6	9.1	11.1	7.0	9.0	8.6
Feb. 7	10.2	13.0	3.6	10.1	14.0	5.3	11.1	9.6
Feb. 8	10.0	14.6	6.0	11.4	9.3	7.1	9.5	9.7
Period								
Average								8.56

CHART 3.—Average Number of Movements Per Hour on a Protein Diet (One-Quarter Pound of Eggs or Meat)

Date	Sub-ject 1	Sub-ject 2	Sub-ject 3	Sub-ject 4	Sub-ject 5	Sub-ject 6	Sub-ject 7	Aver-ject age for Group
Feb. 9	9.3	12.0	4.0	12.0	11.3	6.3	9.3	9.1
Feb. 10	6.7	16.7	5.7	13.0	11.3	6.5	9.6	9.9
Feb. 11	6.0	9.7	4.4	11.4	10.6	5.5	9.4	8.1
Feb. 12	5.5	10.6	4.4	10.2	11.8	7.6	9.1	8.4
Feb. 13	6.0	15.7	4.0	11.0	11.1	6.0	10.4	9.1
Feb. 14	5.1	9.8	3.3	11.0	12.6	5.7	9.0	8.1
Feb. 16	9.3	11.2	4.1	15.0	12.8	6.0	9.3	9.6
Feb. 17	9.2	11.0	6.1	14.0	14.3	5.8	8.8	9.9
Feb. 18	10.5	9.8	5.3	9.7	10.2	5.6	9.6	8.7
Feb. 19	8.0	10.8	5.2	13.5	17.9	4.5	10.5	10.0
Period								
Average								9.0

CHART 4.—Average Number of Movements Per Hour on a Fat Diet (One Ounce of Butter)

Date	Sub-ject 1	Sub-ject 2	Sub-ject 3	Sub-ject 4	Sub-ject 5	Sub-ject 6	Sub-ject 7	Aver-ject age for Group
Feb. 20	10.0	11.8	4.4	11.3	13.8	6.1	7.6	7.8
Feb. 21	9.2	13.0	4.0	.....	12.4	7.0	8.7	9.0
Feb. 22	8.3	11.4	3.0	.....	13.5	6.4	.....	8.5
Feb. 24	8.8	18.6	2.3	13.3	12.0	4.9	7.9	9.6
Feb. 25	8.0	9.2	3.2	12.5	8.0	6.0	9.3	8.0
Feb. 26	.....	9.8	4.4	10.0	13.6	5.0	8.1	8.5
Feb. 27	11.2	18.0	.....	12.8	12.4	8.2	7.8	10.7
Feb. 28	9.2	11.4	6.3	9.8	13.0	6.2	6.6	8.9
Mar. 1	8.1	10.2	5.8	.....	16.0	4.7	7.7	8.7
Mar. 2	6.6	8.5	.....	.....	10.6	6.2	7.7	7.9
Period								
Average								8.76

CHART 5.—Summary of Average of All

Normal—Nothing taken	7.89 movements per hour
Carbohydrate diet	8.56 movements per hour
Fatty diet	8.76 movements per hour
Protein diet	9.00 movements per hour

COMMENT

These figures would seem to indicate that a more restful sleep is had if nothing is eaten on going to bed.

But a protein diet causes more disturbance of rest than either one of fat or of carbohydrates.

Of the three, there is less restlessness with the taking of carbohydrates.

San Quentin.

FRACTURES OF THE OS CALCIS*

By MAYNARD C. HARDING, M. D.
San Diego

DISCUSSION by Edward N. Reed, M. D., Santa Monica; Fred Fairchild, M. D., Woodland; Fraser L. Macpherson, M. D., San Diego.

THE frequency of fractures of the os calcis is growing with the increase of all types of fracture. Its relative frequency seems to depend on the amount of construction in a given locality, since it is largely a fracture of falls from a height of ten feet or more. Ellison,⁹ in 1927, stated that it constituted three-tenths of one per cent of all fractures. In a recent article he increased it to two per cent. Herman⁴ estimated it at two per cent. My own experience places it at about one per cent.

Following Cotton's papers on the treatment of os calcis fractures in 1908 and 1911, not much had been written on the subject until my article in the *Journal of Bone and Joint Surgery* in 1926,¹⁰ setting forth the method the author had used since 1917. This present paper deals with the further use of this method, with modifications suggested by experience.

As is well known, nearly all these fractures are caused by falls on the feet. A few may be direct crushes, or the posterior end of the heel may be bitten off by a shearing force such as a descending elevator.

* Read before the General Surgery Section of the California Medical Association at the sixtieth annual session, San Francisco, April 27-30, 1931.

CLASSIFICATION OF HEEL FRACTURES

Recent authors have classified heel fractures in several ways, some of which are quite complex. It seems to me that the earlier and more simple classification is best, as it is directly related to the different methods of treatment.

First, may be considered the fracture of the posterior part of the heel not entering the subastragaloid joint. The deformity is generally directly upward displacement. The reduction is a simple problem, even though often difficult.

Second, may be considered the fractures entering the subastragaloid or calcaneocuboid joint, but without broadening of the os calcis. Here the problem of painful stiffening of the joints enters. Further experience has shown me that, while subastragaloid stiffening is one of the most disabling results, calcaneocuboid pathology is a marked factor of disability in some cases.

Third, may be considered the smash fracture. Here we have the familiar picture of a heel bone which is shortened fore and aft and broadened until it may project beyond the malleoli. The posterior end is thrust up and the arch flattened, often with marked rupture of the plantar fascia and ligaments. Comminution into the subastragaloid and calcaneocuboid joints gives a rough articular surface, beyond the reach of any manipulation to smooth out. This third type is the one we ordinarily think of. It is the one that Cotton classified as causing disability second only to fractures of the neck of the femur. The disability runs true to form, according to the pathology. Pain under the heel on walking is due to pressure on callus in the sole. This results from insufficient reduction downward of the posterior fragment, so that weight is being borne on the fracture line instead of on the tuberosities where nature intended it to be borne. Extensive plantar ligament tear may also be a factor, but is rarely so persistent. The most common disability is due to broadening and to a rough subastragaloid joint. Broadening interferes with lateral motion so necessary in walking on uneven ground, while it also impinges on the peronei tendons as they pass through the mortise under the tip of the external malleolus. Impaired lateral motion does not necessarily cause pain, for nearly all of these types have some restriction as an end result. It is likely that the very painful cases have a joint irregularity from a fragment that acts like a locking joint mouse in the knee. This has a definite bearing on reduction. Where the fracture line penetrates the calcaneocuboid joint, a further factor of foot stiffness, with varying degrees of pain, is introduced. This stiffness may involve all the midtarsal joints, remaining for months in spite of persistent physiotherapy. I believe it to be due to scar tissue following extensive rupture of the fibrous investment which holds the bones of the foot together. Occasionally, of course, there is an inflammation with some infectious complication, but the force of the injury will account for most of the symptoms.

DIAGNOSIS

A diagnosis is made on the history of a fall on the feet, together with marked bulbous swelling and characteristic localized pain on pressure and manipulation. The heel may be markedly shortened and the arch lost. Broadening is often extreme. The exact type of fracture can be told only by the x-ray. The customary anteroposterior and lateral foot views are not enough to bring out all the pathology. The following position, worked out many years ago by Dr. Lyell C. Kinney, is also necessary:

"The patient is placed prone on the end of the table with the foot in dorsal flexion, the plate against the sole of the foot. The tube is shifted so the central ray is perpendicular to the axis of the os calcis. This is of great importance, as it shows both lateral broadening and lateral angulation or displacement of the posterior fragment."

TREATMENT

Let us consider the treatment of the "smash" fracture, bearing in mind the pathology just outlined, as well as the customary results with their causes. It is a surgical axiom to restore broken bones as nearly as possible to their original form. Our proposition here is:

1. To bring down the posterior end of the heel until the inferior tuberosities are the most dependant part (this is to prevent pain in the sole on weight bearing).
2. To break up impaction and remould the bone to approximately its normal width, remembering that if much comminution exists, some shortening and broadening will remain after the most careful reduction.
3. To restore the arch.
4. To secure as free a motion as possible in the subastragaloid and calcaneocuboid joints.

Most of the recent authors are agreed on the first two points in reduction. Some of them stress the third, but none the fourth.

There is considerable unanimity in advocating Cotton's mallet impaction for broadening, and the use of traction downward on the heel. Ellison¹ uses impaction and traction by tongs or tendon lengthening. Allison³ advises operation and primary subastragaloid arthrodesis of the majority. Herman⁴ uses mallet impaction and traction by tongs or pin. Wilson⁵ advises arthrodesis of all. Nutter⁷ also advises arthrodesis of all. Buehler uses traction and countertraction by a Steinman pin through the os calcis and one through the tibia, with clamp impaction.

Author's Method.—The following method to be described was worked out by the author in an attempt to bring adequate force to bear in correction of all the deformity so far as possible. The instruments needed are: (1) a common D clamp used by carpenters; (2) a pair of felt-padded boards 1 x 2 inches in size; (3) a triangular wooden wedge four inches high; (4) a pair of skeletal traction tongs or a four-prong sharp retractor; (5) a hammer.

The patient's leg is bent over the side of the table with the foot placed on the wedge which rests on a stool of suitable height. No adequate relaxation of the uncut Achilles can be obtained with a straight leg. I have never found it necessary to do a tenotomy if this position has been used. The surgeon sits on a low stool or bench. His assistant sits on a bench or on the floor. If tongs are used they are seated in stab wounds as far back as a good hold can be obtained. If the retractor is used, seat it deeply at the attachment of the Achilles by a sharp blow of the hammer. It has proved very satisfactory in most of the cases. Possibly a little better backward pull can be obtained by the use of tongs.

The surgeon holds the foot in extreme plantar flexion over the wedge. The assistant makes strong downward traction on the retractor. This should restore the arch and draw down the posterior fragment. If there is difficulty in unlocking the fragments, traction backward and then downward is made and repeated. The thickness of the well heel is measured and noted, using the clamp as a caliper. The pads are applied to the sides of the fractured heel and the clamp screwed up slowly to dissipate the swelling. Then strongly to mould the bone, all the while maintaining strong downward traction on the forefoot and heel. Further downward correction can be made during compression. The pads are shifted several times, compression being continued until the two heels compare favorably in width. Then, with the clamp firmly set, use it as a wrench to produce lateral rocking in the subastragaloid joint. Also mobilize the midtarsal joints. If good motion can be obtained at this time, in all probability it will be retained. I am convinced that this is important.

Remove the clamp, wedge, and stool. Apply a snug cast while maintaining plantar flexion and strong heel traction. Just before the plaster sets, put the pads on the outside of the cast and mould the plaster in with the clamp until the heel is tightly clasped. As soon as the plaster has set, remove the clamp and retractor. The cast is then carried to midthigh with the knee at 135 degrees, to keep the Achilles relaxed.

The after-care is quite simple. The cast may be removed in four or five weeks, when active motion and physiotherapy are begun. In about six weeks the patient can bear weight on the ball of the foot. In eight weeks he is fitted with a felt arch supporter and allowed to walk on the whole foot.

COMMENT

The results have been surprisingly good. As stated before, nearly all of these heels have some limitations of motion and some changes in shape. There are twenty-six cases in the series treated by this method. Three are too recent to know the end results. The other patients have returned to their ordinary work. Their average period of disability was between five and six months. None have had any further operations.

There are three types of heel fracture that need open reduction. In fractures of the posterior half, when the fragment cannot be brought down

by manipulation, a horseshoe incision running as far forward as the fracture line on the outer side is made and the bone exposed. An attempt is made, with the knee flexed and the foot in plantar flexion, to lever the fragment down into place. If this is not possible, do a diagonal section of the Achilles. Hold the fragment with a beef-bone screw or a nail. Cast as in the other fracture.

For those old cases with persistent pain in the subastragaloid region or with excess bone under the external malleolus, make a curved incision under the tip of the fibula and remove excess bone. Next enter the subastragaloid joint and remove all cartilage in sight, producing an arthrodesis. This is entirely satisfactory as a pain reliever in the majority of cases. The resultant stiffness is gradually overlooked, provided mobile midtarsal joints are secured.

In that type of cases where the patient is walking on tender callus in the sole, make an external incision parallel to the plantar surface and chisel away enough callus to leave the tuberosities the most dependent part. These patients, particularly, need an arch support, preferably flexible.

IN CONCLUSION

It is unfortunate that many surgeons cling to the belief that a cast in the position of deformity is good treatment. I see several patients a year for insurance companies where no further treatment has been attempted. Nothing but arthrodesis with remodeling remains for these patients after a year or more spent in trying to make a painless joint by physiotherapy. At the other extreme is the unjustified pessimism that is leading some men to immediate operation. Surely every case is entitled to have at least the manipulation described here. If this can produce a good result, why operate?

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DISCUSSION

EDWARD N. REED, M. D. (301 Professional Building, Santa Monica).—Doctor Harding has insisted for years on two considerations which are apt to be overlooked, in the consideration of the gross deformity of a severe os calcis fracture, yet which are of primary importance to recovery of function. I refer to the involvement of the subastragaloid and calcaneo-cuboid joints; and to development of a weight-bearing surface in front of the tuberosity of the os calcis, and usually within the area of attachment of the plantar ligaments.

Dr. Andrew R. MacAusland remarks that: "It is a paradox that a slight injury to an os calcis, with fracture, will give you more prolonged disability than a severe injury." This because the severe injury usually produces an arthrodesis of the subastragaloid joint.

Several methods are advocated for reduction of os calcis fractures. I have used Doctor Harding's method a number of times and have had good success with it. The need for reducing the deformity, by whatever method, is obvious. But I believe that Doctor Harding's insistence on securing free movement through normal range, in the subastragaloid and midtarsal joints, at the end of the reduction, is not sufficiently stressed.

Producing this movement tends to iron down edges of fragments which project into the joint space, and to smooth out the articular surface. It is these edges and spicules projecting into the joint space, which, after consolidation has taken place, cause the pain in walking on uneven surfaces.

To guard against a painful weight-bearing surface on the bottom of the heel, the restoration of the tuberosity to its position as the lowest level of the os calcis must be insured. The Achilles tendon must be slacked off by dressing the leg in knee flexion and foot drop. Even with this position I have sometimes felt safe only with a pin introduced through the bone and incorporated in the plaster cast; and have never had any trouble from the pin.

Such a pin through the bone makes the manipulation of reduction surer and easier and I believe is the method of choice where the position of the posterior fragment requires considerable alteration.

In its end results fracture of the os calcis is one of the most disabling of all fractures. My own experience is in agreement with Doctor Harding's, that these fractured os calces do not all require immediate arthrodesing operation but that many can be restored to painless function by the method he has outlined.

✱

FRED R. FAIRCHILD, (Woodland Clinic, Woodland).—We are in agreement with Doctor Harding's opinion that fractures of the os calcis seem to be becoming relatively more frequent. For the past ten months, of all fractures treated by us, seven were of the os calcis, approximately two per cent for this ten months' period.

We would stress the necessity for the examination of the spine in all fractures of the os calcis since the type of violence causing this lesion is such as to make an associated compression of the vertebral body not infrequent.

The classification of os calcis fractures as outlined by Doctor Harding seems excellent. We have used Wilson's classification and divide fractures of the os calcis into isolated fractures and into fractures of the body of the bone, considering the latter under the broad subdivisions of fissured and comminuted fractures.

In the first type of fracture we have no hesitation in using a pin or preferably a wire if the reduction is difficult. In the second type we feel that there is great danger in using a pin as there is the possibility of changing a simple fracture into a compound one by this method. This rarely happens; but once having seen it, the danger is not easily discounted.

We agree with others that fractures of the os calcis are very disabling when they extend into the subastragaloid or the calcaneocuboid joint. We have felt that the majority of such fractures require a fusion and we have noted that in all such fractures, at the time of operation, the irregularity of joint surfaces is much more pronounced than one would be led to have supposed from the x-ray.

We also feel that it is important when x-raying the fracture, that a plantar view be taken as well as an anteroposterior and lateral, as we have several times demonstrated a fracture by a plantar view that would otherwise have been missed.

We are in accord with Doctor Wilson's opinion that the amount of motion recovered in a severe frac-

ture of the os calcis involving the subastragaloid or calcaneocuboid joint, or both, is very little, and that generally such motion while not materially aiding function causes pain.

Our experience convinces us that in a bad fracture of the os calcis a fusion operation gets the patient back to work much sooner than by any other treatment. Too frequently those conservatively treated eventually come to a fusion. We are inclined in severe os calcis fractures to advise immediate arthrodesis.

It is most gratifying to know that Doctor Harding by his conservative method has had such excellent success. Possibly the pendulum is swinging too far toward the side of surgical treatment. Very likely the method of choice will ultimately be found to be somewhere between the two extremes.

✱

FRASER L. MACPHERSON, M. D. (610 Medico-Dental Building, San Diego).—For the past five years I have had the opportunity of seeing many of Doctor Harding's patients and have also used the same method in my own practice.

It is surprising the amount of anatomical reduction that is possible in these severely smashed fractures of the os calcis. Many of the severely comminuted fractures of course cannot be anatomically reduced, but by this method the alignment of the subastragaloid joint is much better restored than by any of the other methods described.

Another advantage of this method is that the patient is able to be put in a plaster cast immediately and the length of time spent in the hospital is thereby greatly lessened.

I feel this is the method of choice in reducing this type of fracture.

FAVUS IN CALIFORNIA*

REPORT OF CASE DUE TO A STRAIN PATHOGENIC FOR MICE

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AND

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DISCUSSION by Samuel Ayres, Jr., M. D., Los Angeles; Hiram E. Miller, M. D., San Francisco; Ernest K. Stratton, M. D., San Francisco; Harry E. Alderson, M. D., San Francisco.

DISEASES of the skin produced by fungi of the achorion or allied groups and characterized by typical scutula are extremely rare on the Pacific Coast. According to Crutchfield, Michael, and Shelmire, few cases of favus have been observed in our southwestern states, although other forms of fungus infection are extremely prevalent.

In 1926 Frost and Koetter reported a case of favus, but in a recent communication from one of them¹ doubt was expressed as to whether this diagnosis should not be revised.

Since the literature fails to reveal additional cases of favus occurring in California, it is assumed that this is the first case to be actually published, although various physicians have verbally stated that they have seen examples of the disease.

* Read before the Dermatology and Syphilology Section of the California Medical Association at the sixtieth annual session at San Francisco, April 27-30, 1931.

REPORT OF CASE

K. G., age fifteen, male, of Jewish extraction, born in the United States, was first seen December 29, 1930. He complained of a skin eruption on the posterior surface of the neck, which itched, burned, and seemed to be slowly increasing in size. At the time of the onset, some two weeks before, he was attending a military academy near Los Angeles. His room mate, a native of Mexico, as far as could be ascertained, did not have a similar infection nor on careful examination did any of the other students.

Examination showed a small group of grayish white scutula. They were raised several millimeters above the surface of the skin, were more or less friable and in some instances pierced by a hair.

Upon removing the scutula the underlying surface was found to be somewhat excavated, reddened, and bleeding occurred in several instances. Atrophy and suppuration were absent when first seen.

The scutula showed no evidence of becoming confluent, possibly due to the fact that in robust individuals the progress of the malady is exceedingly slow and months often elapse before there is extensive involvement.

Laboratory Findings.—Erythrocytes, 4,370,000; leukocytes, 4150; hemoglobin, 82 per cent; color index, 0.9; Differential: polymorphonuclears, 63; small lymphocytes, 30; large lymphocytes, 2; eosinophils, 4; and basophils, 1. Morphology normal. Kahn negative. Urine negative.

Mycological Studies.—Since scutulum of favus is composed almost entirely of fungus, there was no difficulty in demonstrating mycelium in routine extemporaneous NaOH preparations. The appearances were unlike the conventional *Achorion schonleini* in that (1) the spore masses consisted of spherical cells rather than the ellipsoidal ones representative of the arthrospores of *Achorion schonleini*; (2) there were rather numerous, long, seldom-branched hyphae; those of *Achorion schonleini* are generally closely branched and become so promptly broken up that they do not appear in long hyphae; (3) yet again, the spores generally contained a large hyaline, spherical central mass which reproduced something of the fish-eye effect that has been described for *Monilia psilosis*. In short, the appearance of this material from a scutulum was unexpectedly



Fig. 1.—Typical scutula on the posterior surface of the neck. Natural size.

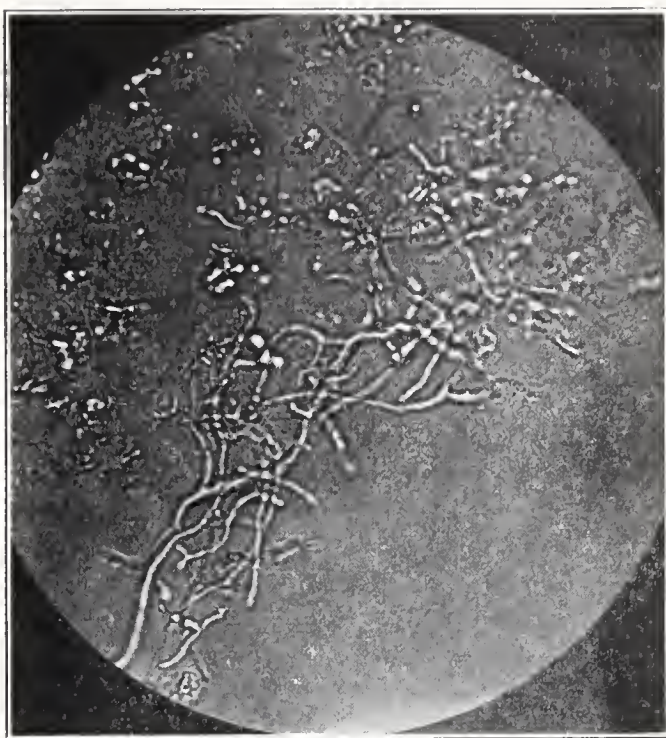


Fig. 2.—Microphotograph of unstained fungi from one of the scutula. Magnification 400.

like that of a trichophyton from a very old agar culture.

Cultures.—In two weeks colonies were three centimeters in diameter and occupied the entire width of the glucose agar slant in one-inch glucose agar tubes. The colony had sharp margins, was snowy white except in the center, where it was a faint creamy yellow. The colony as a whole was but slightly elevated above the general level of the agar, but the peripheral parts appeared more highly bulged than they actually were because the center was so definitely depressed. There was not the slightest trace of granularity to indicate formation of conidia on this medium.

On conservation medium the features were the same, but in miniature. Colonies at the uppermost dried-out part of the slant were definitely granular, but of course this feature was not available for determinative purposes because the cultural conditions were not standard under such circumstances.

Hanging Drop Preparations (Twenty-one Days Old).—The appearances in quadruplicate preparations were the same. The center of the colony consisted of a mass of more or less detached arthrospores and chlamydospores. In the periphery the arrangement of the former into more or less definite hyphae could occasionally be made out and, furthermore, from place to place occasional narrower and still continuous hyphae were discovered. The latter were frequently studded with aleuries and became typical thyrses. It was not uncommon for some of the arthrospores to remain attached in series, giving rise to short moniliform stretches. In the most peripheral parts of the hanging drop, there were numerous small satellite colonies showing in principle the same features as were just described for the mother colony. There were no spirals, fuseau, organes nodulaires or grappes.



Fig. 3.—Fourteen-day cultures on glucose agar.

Mycological Summary.—Botanically speaking the organism is, of course, not *Achorion schonleinii*, but clearly trichophyton. This is true both of the gross and microscopic characters. It grew at first like *Achorion quinckeanum*, but eventually became folded in an exaggerated way (which we do not believe to be compatible with *Achorion quinckeanum*, at least as characterized by Sabouraud). Microscopically, too, it is incompatible with that species, failing to show the higher order of reproductive bodies and morphology of *Achorion quinckeanum*. It is emphasized that these hanging drops were prepared from colonies of the first generation, in which the factor of pleomorphism ought to be negligible, and the organes, therefore, truly representative of the species.

The characters, both gross and microscopic, are identical with some varieties which one of us secured from between the toes in other patients and has been constrained to diagnose as *Trichophyton interdigitale*, but we naturally hesitate to return this mycological diagnosis for a case with the clinical characteristics of favus so clearly present. To be more exact, the deeply depressed center of this strain reproduces most faithfully

the *Trichophyton pedis* which Professor Ota² sent the University of Pennsylvania from Japan, and which one of us had always regarded as a variety of *Trichophyton interdigitale*. The morphological variation for which the latter organism is notorious has been stressed by German workers, who designate the species as the “Kauffman Wolff”³ fungus and have already described a duvetuse variety, a powdery variety, a cerebriform variety, and a radially striate variety.

Inasmuch, then, as we have record of a *Trichophyton gypsum*⁴ having produced favus cups, we can see no deterrent to extending the possibilities to such a closely related organism as *Trichophyton interdigitale* is, at least microscopically, to the gypsum group. Under the circumstances one feels forced, unwillingly, to regard this strain as a member of that extremely variable group covered by the designation *Trichophyton interdigitale*. It is planned to cover the mycology of rat favus strains more comprehensively in a supplementary communication.

Clinico-Mycologic Reconciliation.—The disease favus depends for its autonomy largely upon the phenomenon of the favus cup or scutulum. The latter is quite a pathognomonic sign according to the accepted definition of the disease. It is the product of mass growth of fungus substance, but not of any particular species of fungus; as a matter of fact, no less than five or more different species have been incriminated in inducing the favus cup.

While this phenomenon is sufficient in itself to separate favus from ringworm, there are other features, such as its mode of growth in the hair follicle, its obstinacy, and particularly its tendency to residual scarring, which add to the considerations that justify giving this disease a separate designation.

On the other hand, and only incidental in our case, it must be remembered that the various favus species (achorions) do not invariably produce the favus cup; they may produce erythematous and crustaceous lesions which are not diagnosable from dermatophytosis or perhaps certain expressions of seborrheic dermatitis short of resort to laboratory methods. Conversely, under exceptional circumstances, certain of the dermatophytes as, for instance, *Trichophyton gypsum*, have been known to produce the favus cup; a strain isolated from sycosis barbae induced scutula in two mice and one man.

There can thus be no doubt about admitting this case as one of favus; it exhibited typical scutula, had the mouse-like odor, extremely slow growth, extraordinary resistance to treatment and was followed by atrophy of the skin. Furthermore, the crusts consisted of solid masses of fungus substance. The fact that the scalp did not become involved accounts, no doubt, for its present apparent cure.

The disease often limits itself to an irregular area several centimeters in diameter as it had done in the neck in this case. Ill



Fig. 4.—Ear of a white mouse inoculated from pure culture one month previously.

health is said to increase the rapidity of spread.

While favus is a disease of the cutaneous surface, it is possible in rare instances that the mucous membranes may become implicated. Kundrat⁵ reported a case of generalized favus in a patient dying subsequently from gastro-intestinal disease (gastro-enteritis favosa). It was found at necropsy that the favus fungus was present in the esophagus, stomach, and intestines.

Cats and mice are attacked by the disease and in many cases are responsible for its spread. In certain in-

stances the disease is transmitted from one child to another, but much less readily than the commoner varieties of fungi such as the trichophyton, microsporon, and epidermophyton.

As to the identity of the fungus, the discrepancies in the way of accepting *Achorion quinckeanum* are as follows: (1) The higher organs, such as fuseaux, were not produced in our cultures. (2) Whereas heavy crusts grew on the experimental mouse ear, actual cup formation was not induced, although the lesion regressed spontaneously within about four weeks. (3) Cultures did not quite conform to the Sabouraud type grossly. Other workers have had similar discordant experiences. Dubois⁶ in reporting two cases from Geneva, preferred to refer his cultural difficulties to difference in medium rather than create a separate variety. Nor did his animals, although they developed crusts, ever go as far as cup formation. Both Howard Fox and Greenbaum have presented to one of us (F. D. W.) cultures which in one respect or another did not agree with Sabouraud's criteria and yet yielded classical cups on mice. Goldsmith has indicated, by written communication, that his cultures of *Achorion quinckeanum* did not run true to Sabouraud description.

The outcome of all this is that *Achorion quinckeanum* is, like *Trichophyton interdigitale* (Kauffman-Wolff fungus of the Germans) a highly variable form morphologically, one to which a number of varieties will have to be ascribed. The range of these varieties may finally prove to be so wide that, at least morphologically, *Achorion quinckeanum* will overlap or merge on occasion with varieties of the equally variable *Trichophyton interdigitale*. Such a connection would reconcile the "Trichophyton pedis—*Achorion quinckeanum*—scutulum formation on man—crust formation on mice"—discrepancies met in this experience.

CONCLUSIONS

1. In spite of proximity to Mexico, and accessibility from the Orient, favus appears to be rare in California. It is believed that this is the first case reported for California that is valid.

2. Since the fungus isolated was strongly pathogenic for mouse skin, suspicion is justified as to its identity with *Achorion quinckeanum*, the organism of mouse favus. Botanically, however, it behaved more like *Trichophyton interdigitale*, which would bring it into relationship with dermatophytosis of man and open new considerations for that disease.

3. If this strain be finally referred to *Achorion quinckeanum* (on physiological grounds) it is suggested that there are "varieties" of this species just as ones are claimed for *Trichophyton interdigitale*.

4. The source of this California infection, whether imported or from animals, could not be traced. Rats and cats come under suspicion.

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3. Atypical Form of the Kauffman-Wolff Fungus (*Epidermophyton Interdigitale*), Derm. Wehnschr., 91:1250, (August 16), 1930.
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5. Kundrat, H.: Wien Med. Blatter, p. 1538, 1884.
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DISCUSSION

SAMUEL AYRES, JR., M. D. (2007 Wilshire Boulevard, Los Angeles).—I have never seen a case of active favus in my eleven years' residence in California, although I have encountered several patients with cicatricial scalps resulting from favus acquired in foreign countries, particularly Russia. With increasing economic intercourse with Asia it would not be surprising to see active cases from time to time.

The authors have rendered a valuable service not only in calling attention to the existence of this disease in a locality where it has hitherto been unknown, but especially in pointing out that the clinical picture of favus may be produced by a variety of organisms. This is analogous to similar observations with regard to other clinical entities due to fungi. The picture of epidermophytosis may be produced not only by any one of a half-dozen or more varieties of tinea, but also by fungi of entirely unrelated groups. We have seen several instances of typical "athlete's foot" in which *Monilia albicans* was obtained both by direct microscopic examination and by culture, and also several cases in which penicillium was the only organism found, and which formed colonies about each scale which was planted.

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HIRAM E. MILLER, M. D. (384 Post Street, San Francisco).—I have seen three patients in San Francisco with extensive favus of the scalp: (1) A young Mexican adult who was deported because of his infection; (2) an Italian girl of eleven just returning from a stay of several years in China; and (3) a Chinese girl eighteen years of age, who had spent most of her life in China. The disease in all three patients was of

many years' duration, and had caused extensive scarring and alopecia. The causative organism in KOH preparation and culture was the *Achorion schonleini*. Animal inoculations were not done.

This report of Way and Weidman of a patient with favus-like cups of two weeks' duration from which a trichophyton was isolated is most interesting. I cannot see why it is reported as favus, however. I have always believed that favus was a disease caused by the *Achorion schonleini* or one of the other achorions. Sabouraud reports that 99 per cent of cases are due to the *Achorion schonleini*, and the remaining 1 per cent to other achorions. If a patient has a membranous sore throat and the diphtheria bacillus is isolated from it, the condition is diphtheria. If, however, a streptococcus only is found, it is a streptococcal sore throat. In this patient a trichophyton was isolated from an acute condition with favus-like cups. I would prefer to classify it as a trichophytosis with favus-like cups, even in view of the pathogenicity of the organism for mice.

The complete mycologic studies in this case are most interesting. This type of investigation, as carried out by Doctor Weidman, will help us to understand many of these unusual mycologic infections.



ERNEST K. STRATTON, M. D. (490 Post Street, San Francisco).—During seven years of dermatological practice in California, I have not seen a case of fungus infection in the skin or scalp which I could clinically diagnose as favus. During two years of daily attendance in a large dermatological clinic in New York City, however, I saw many cases in which the diagnosis of favus was made on the basis of finding scutula which contained masses of mycelia and large spores, as demonstrated in KOH specimens. Cultures were not made as a routine procedure for the reason that it was generally believed that favus could be caused only by the *Achorion schonleini* or in rare instances by the *Achorion quinckeanum*.

From this case reported by Doctors Way and Weidman as well as the literature quoted by them, we learn that the trichophytosis as well can cause the clinical skin complex known as favus and that the achorions, on the other hand, do not always call forth this type of skin reaction, but may on occasions produce only erythematous scaly lesions characteristic of the trichophytosis.

This is a very interesting observation. The only accurate way to identify the species, of course, is by means of cultures; for practical purposes, that is curing the patient, this is not necessary; for research it is a fascinating study, one which most dermatologists wish they had the time and the necessary training to pursue intelligently.



HARRY E. ALDERSON, M. D. (490 Post Street, San Francisco).—The clinical appearances in this case were quite typical of those seen in favus, so the mycologic findings rather surprised us. It is customary to name skin lesions in accordance with the clinical picture, so we prefer to call this a case of "favus." Doctor Ayres' remarks are much appreciated. It is significant that he has observed no cases in the large amount of clinical material that he has seen in southern California. Many others with whom we have communicated in the western states have had the same experience. Doctor Miller's comments are interesting. I am very sorry that he has never officially reported his cases, even though animal inoculations were not done.

This is the first active case of favus that I have seen in this part of the state during twenty-five years of dermatologic practice, although I have had numerous examples of typical old favus scars in my clinic. It is surprising that this is so when one considers the prevalence of the disease in the Orient and in countries south of us. It speaks well for the vigilance of our federal health officials.

CHRONIC KIDNEY INFECTIONS IN INFANTS AND CHILDREN*

REPORT OF CASES

By WILLIAM M. HAPP, M. D.
Los Angeles

DISCUSSION by Elmer Belt, M. D., Los Angeles; Glenn Craig, M. D., San Francisco; Donald A. Charnock, M. D., Los Angeles.

ACUTE pyelitis constitutes one of the most frequently encountered infections in infancy and childhood and its importance as one of the common causes of fever in female children cannot be overemphasized. It is not the purpose of this paper to consider the acute transient infections of the urinary tract, the so-called acute pyelitis. These respond readily as a rule to medical treatment and the subject has been sufficiently emphasized elsewhere. This discussion is limited to a consideration of some of the problems encountered in the treatment of chronic and recurring pyuria in children. These cases are often resistant to medical treatment. In many of them the infection is dependent on some obstruction in the urinary tract, either congenital or acquired, interfering with proper drainage of urine. In these cases the chronicity of the infection is due to stasis or renal infection, or a combination of these two factors, and the results of treatment are largely dependent on the degree and duration of the obstruction and of the infection. Early diagnosis is, therefore, highly important in order to obtain the most satisfactory therapeutic results.

PATHOLOGY OF PYURIA

It is generally agreed that the term "pyelitis," referring to an inflammation of the pelvis of the kidney, is unsatisfactory. Such a pathologic condition rarely exists without associated inflammation elsewhere in the urinary tract. The term pyuria, suggested by Chown, is preferable, as this term does not commit one to an anatomic diagnosis.

Chown¹ studied cases of so-called pyelitis which came to autopsy. He states, "The current conception of pyelitis is erroneous, leading to errors in diagnosis, treatment and investigation. All the evidence available points to the kidney proper as the usual seat of the lesion in cases of pyuria in infancy." The lesion, according to Chown, is a suppurative interstitial nephritis with secondary involvement of the parenchyma. The infecting organism, usually *B. coli*, produces an acute inflammatory lesion, characterized by edema and outpouring of polymorphonuclear cells, and, to a lesser extent, mononuclear cells with degeneration of the neighboring parenchyma and varying degrees of necrosis. These products escape into the tubules, drain thence into the pelvis, and so appear in the urine. The pelvis is apparently very resistant to infection.

It must be emphasized that the lesion here described occurs in the severe and prolonged cases

* Read before the Pediatric Section of the California Medical Association at the sixtieth annual session, San Francisco, April 27-30, 1931.

of infection. The milder acute cases rarely come to autopsy, so that the exact histologic changes are still problematical.

Wilson and Schloss,² in a study of autopsy material from forty-nine infants and young children who showed pyuria during life, found in the majority a true suppurative lesion in the interstitial tissue of the kidney itself. In six patients no changes were found in the kidney, but a cystitis was present. The pelves were generally normal.

The method of infection in pyelitis has been the subject for much discussion. The organisms may enter the bladder by ascending direct route, by lymphogenous or by hematogenous passage. Helmholz and Amberg believe that the organisms enter the bladder by way of the urethra. There is good evidence to show that the bladder urine of the female infant frequently harbors *B. coli*. Helmholz and Amberg³ quote Schwartz, who reported *B. coli* in the bladder urine in sixty-three per cent of infant girls with diarrhea. Beer and Hyman⁴ state that colon bacilli have been found in the bladder urine of ninety per cent of normal female infants. According to Helmholz and Amberg,³ the infection of the higher urinary passages takes place through stasis, by ureteral reflux, or by passage of bacteria up the periureteral lymphatics and possibly up the lumen of the ureter. Stasis promotes the extension of the infection to the upper tract. It is well to inquire into the factors which produce stasis in the urinary tract.

MECHANICAL FACTORS WHICH PRODUCE URINARY STASIS

Various authors (Helmholz,⁵ Bugbee and Wollstein,⁶ Campbell and Lyttle,⁷ Bigler,⁸ Lowsley, Kingery and Clarke,⁹ Hunner and Wharton,¹⁰ Hunner,¹¹ and others) have called attention to the frequency of congenital and acquired lesions producing obstruction in the urinary tract. The accompanying diagram from Helmholz and Amberg³ gives the location of these obstructive lesions occurring in children.

Bigler in a study of 153 autopsies in children under four years of age found anomalies of the urinary tract in twenty cases. In only one of these twenty cases was the diagnosis made during life. Among these were thirteen cases of ureteral obstruction.

Campbell and Lyttle,⁷ in 2420 autopsies on children, found evidence of ureteral blockage in forty-seven, or 1.9 per cent. Some of these cases gave a history of recurring attacks of pyelitis from early infancy. They state that the ureteral obstruction may be due to stricture, calculi, kinks, reduplication and abnormal insertion, renal ectopsy, ureteral spasm, intraureteral cysts and obstruction due to renal debris. The obstruction more rarely may be due to extraureteral pressure, as from tumor.

Strictures account for half the cases, according to Campbell and Lyttle.⁷ They may be congenital or acquired and they have a predilection for the pelvic and vesical insertion. They may occur at any point and may be single or multiple. As a

rule, the attention of the clinician is not drawn to these anatomical changes until infection has taken place. Evidence of infection leads to an examination of the urine, but repeated examinations of the urine may be necessary before infection is demonstrable.

Hunner¹¹ states that stricture of the ureter is a frequent cause of chronic pyelitis in children. He reported strictures of one or both ureters in eleven of twelve cases of chronic pyelitis. In his opinion these are more often acquired than congenital and are associated usually with foci of infection in other parts of the body. He quotes Schreiber, who found in one hundred consecutive unselected autopsies twelve instances of narrowing of the ureters. Urinary infections in such patients, according to Hunter,¹¹ usually clear up after dilatation of the ureter, unless the area of stricture persists due to some distant active focus of infection, or if additional areas of narrowing are present, or if there exists an unusually large pelvis which interferes with proper drainage through interference with effective peristalsis.

Valve-like obstruction of the posterior urethra in male infants constitutes the next most common congenital lesion. This condition has been described by Young, Frontz and Baldwin,¹² Kretschmer,¹³ and recently by Campbell,¹⁴ and others. The posterior urethra is obstructed by congenitally placed valves which interfere with the downward flow of urine. The chief symptoms are overflow incontinence and a palpable bladder. If not recognized early, an extensive hydronephrosis and infection develops. For detailed discussion of other congenital obstructive lesions of the urinary tract, the reader is referred to standard texts on urology.

LITERATURE ON PYURIA IN NEW-BORN INFANTS

Pyuria may occur in new-born infants. Sauer¹⁵ reported fifteen cases of neonatal pyelitis. Of these, two died; one, aged seven weeks, showed at autopsy a congenital stenosis of the right ureter; the other cases recovered; none were cystoscoped. Gastro-intestinal symptoms, anorexia, vomiting and diarrhea predominated; pallor and nervous irritability were also noted.

Graham¹⁶ reported six cases of pyelitis in the new-born, all of which recovered.

Grulee and Bonar¹⁷ state, "In the ureter of five per cent of the newly born infants, Jeanbrau has been able to demonstrate valve-like folds, remnants of fetal life, which cause partial obstruction of the lumen of the ureters. This valve-like fold is most commonly found at the uretero-pelvic junction. We have found it with surprising frequency at autopsy. It may be an important factor in the etiology of hydronephrosis and pyelitis."

Kretschmer¹⁸ in 1927 reviewed the question of urologic problems in infancy and childhood. He has reported a series of cases in which cystoscopic study was made, the youngest infant being twenty-seven days of age. He urged more frequent study of cases in children presenting urinary tract symptoms.

REPORT OF SERIES OF ELEVEN CASES OF PYURIA

Our experience in the past few years has led us to report the following group of cases in an effort to emphasize the importance of early recognition of the anatomical defect involved and mechanical treatment aimed at its correction.

HISTORY OF CASES

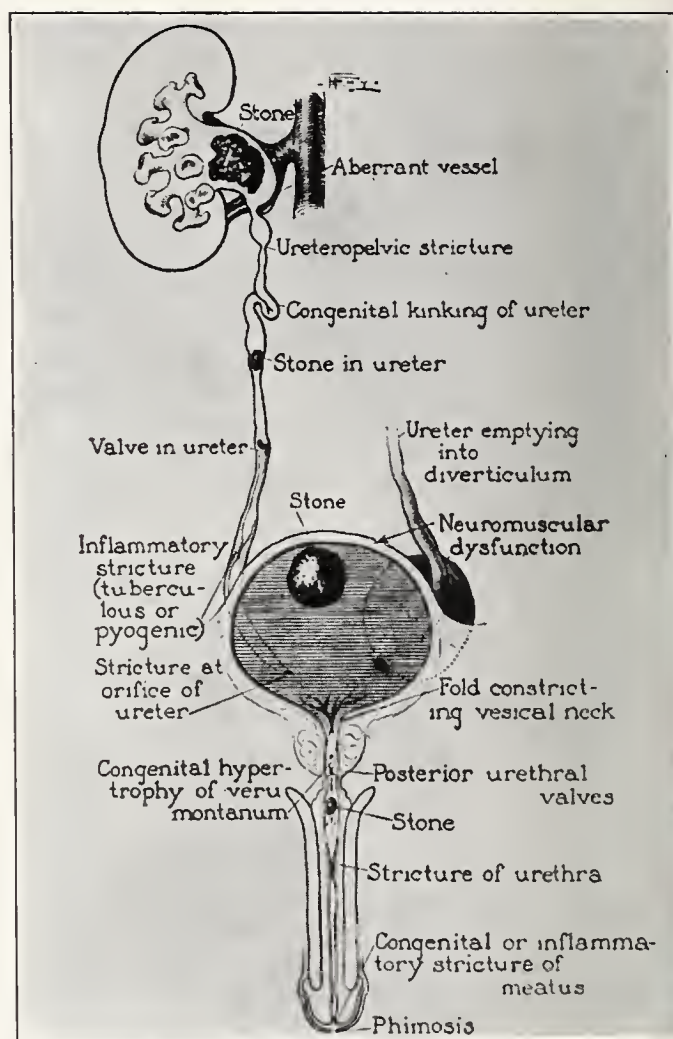
CASE 1. Summary.—Congenital stricture of the left ureter at the uretero-vesical junction occurring in new-born female infant with symptoms developing at the age of twelve days. Diagnosis by cystoscopy at the age of three weeks; treatment by dilatation with recovery.

Case Abstract.—Female infant born November 21, 1928. There was difficulty in resuscitation after birth. The breathing was labored and the baby was cyanotic. Roentgen ray taken at age twenty-four hours showed an enlarged thymic shadow. Roentgen ray treatment was given and these symptoms disappeared. At the age of twelve days the baby developed a fever. Examination of the catheterized urine showed pus; there were no other positive findings. The baby was discharged from the hospital at the age of three weeks, at which time the urine still showed pus. On December 15, 1928, at the age of twenty-four days, a cystoscopic examination was done by Doctor Belt. The bladder was deep red throughout and the mucosa was covered with flaky pus. The ureteral orifices were edematous, but were readily entered. A catheter was passed to ten centimeters on each side. The urine showed pus cells and *B. coli* on culture. A second cystoscopy was done ten days later. The right ureter was readily entered, but the left could not be entered beyond one-half centimeter. The same condition was noted on the third cystoscopic examination January 10, 1929. On January 22, 1929, the operator was able to pass the obstruction. On February 19, 1929, the bladder was clear and catheter readily entered into both ureters. After this time the urine remained clear and the baby progressed normally on the breast. She is now two years four months of age and a normal child.

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CASE 2. Summary.—Congenital stricture of the left ureter at the ureterovesical junction. Pyuria occurring in new-born female infant, with symptoms from the third day of life and pyuria on the tenth day. Cystoscopic examination on the thirteenth day established diagnosis; treatment by dilatation with recovery.

Case Abstract.—Female infant born July 5, 1928, at term. The birth weight was seven pounds, nine ounces. The birth was normal. At the age of three days the baby began to vomit on breast feeding. The stools were normal. At the age of nine days she developed a temperature of 102 degrees. Physical examination at that time was negative, except that the baby seemed listless and pale. She continued to vomit and to run a fever. Urine examination was made on the tenth day and showed pus. A blood count made the same day showed a slight leucocytosis, but no anemia. A congenital obstruction in the urinary tract was suspected and a cystoscopy was done by Doctor Belt on the thirteenth day. This examination showed an extensive cystitis with large areas of mucus covered granulation tissue in the region of the trigone. The right ureter was readily catheterized with a number five whistle-tip catheter, but an olivary tip catheter reinforced with wire was necessary to penetrate the left ureteral orifice. The catheter, after passing this point, passed readily into the pelvis and a rapid flow of thick urine was obtained. The cultures showed *B. coli*. Pyelograms showed no hydronephrosis. Following this, the patient's condition did not improve. She was toxic, her color was not good, and on the fifteenth day a blood transfusion of 100 cubic centimeters of whole blood was given into the superior



Various conditions that may give rise to urinary obstruction. (From Helmholtz and Amberg.)

longitudinal sinus. She continued to show an elevation of temperature, but her general condition gradually improved and the vomiting stopped. The second cystoscopic examination was done on the twenty-second day. The bladder was moderately inflamed. The right ureter could be readily catheterized, but the left could not be entered further than one-half centimeter. The baby was discharged from the hospital at the age of five weeks weighing three ounces over birth weight. One month later the left ureter was catheterized and infected urine obtained. The infection gradually cleared under cystoscopic treatment with dilatation of the ureter. The patient is now two and one-half years of age and in good physical condition, and has had no recurrence of pyuria or urinary symptoms.

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CASE 3. Summary.—A congenital obstruction of the posterior urethra with stenosis of the right ureter at the ureterovesical junction. Symptoms developed during the third week of life, chiefly referable to the gastro-intestinal tract. Pyuria was discovered at the age of six weeks. Cystoscopy at six weeks of age with treatment and improvement.

Case Abstract.—Male infant, born at term. The birth was normal. During the third week the mother noted that the child was drowsy and would not nurse well. Once he fainted and was cyanotic, at which time he was taken to a hospital and an x-ray of the thymus was taken which was negative. An injection of salt solution was given. The baby had projectile vomiting. A few days later he had another fainting attack and the diagnosis of cerebral hemorrhage was considered. He was given another injection of salt solution, but he continued to vomit. He was admitted to the Children's Hospital, Los Angeles, December 15, 1927, at the age of six weeks, with the entrance diag-

nosis of pyloric stenosis. Examination at that time showed a fairly well nourished infant, weighing seven and one-half pounds. The physical examination was negative, the temperature was normal and blood count was normal. The urine was milky, due to the presence of pus. Culture from the urine showed staphylococcus. The condition of the baby was not good. He was vomiting and appeared drowsy. Roentgen rays of the kidney region were negative. Cystoscopic study was made by Doctor Belt December 29, 1927. A number ten French urethral catheter was inserted into the bladder. One-half ounce of urine flowed through, heavily clouded with flaky pus. The bladder was washed clear. Cystoscopic examination showed a valve-like obstruction in the posterior urethra. There was a cystitis and also stenosis of the right ureter at the ureterovesical junction. The patient remained in the hospital six weeks. Most of this time the temperature was normal with occasional rises to 102 and 103 degrees. The urine from both sides showed *B. coli*. Pyeloureterogram revealed an enormous hydroureter on each side with a dilated pelvis. The treatment consisted in dilating the urethra with destruction of the valve and ureteral catheterization with pelvic lavage. The ureteral catheterization was carried out, under gas anesthesia, at weekly intervals until the child was eight months old. The left ureter was readily catheterized at each cystoscopy and the urine from this side was always found to contain considerable pus and many gram negative bacilli. On account of a very tight stenosis of the right ureteral orifice it was very difficult to pass a catheter to this side. When this was accomplished a large amount of pale, pus-filled urine was obtained. The specific gravity of the urine was very low, being only 1000. During this period the child improved greatly in general health. The child was not examined again until September, 1929, at which time the right ureter could not be entered. Just before this examination he had two attacks of fever with pain and retention of urine. The patient is now three and one-half years of age and has continued to have occasional attacks of fever and pyuria. The general condition has been good. Ultimately nephrectomy will probably be necessary.

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CASE 4. Summary.—Congenital stricture of right ureter at ureterovesical junction in female child. Symptoms existing from birth. Pyuria from age seventeen months with treatment. Subsequent attacks of mucous colitis, with recovery.

Case Abstract.—Female child, aged twenty-two months. She was breast fed for ten weeks, but cried constantly, especially at night, so she was weaned. Throughout the first year she cried a great deal, but gained normally in weight. There was moderate constipation. The night crying was believed to be a behavior problem. At the age of fifteen months the parents noted peculiar attacks of stiffening of the body, but there were no convulsions. At this time the parents also noted that the child seemed in pain and that she passed only small quantities of urine at frequent intervals. At the age of seventeen months she developed a diarrhea which lasted ten days. After this, straining on urination was noted and the urine looked cloudy. Urine examination was done at this time and showed much pus. The child then developed attacks of high fever with straining on urination. The pyuria continued in spite of medical treatment. At the age of twenty-two months a cystoscopic examination was done by Doctor Belt. This showed a stricture of the right ureter at the ureterovesical orifice with dilatation of the ureter and beginning hydronephrosis. The left ureter and kidney were normal. There was no pus in the left kidney urine. Following this examination the patient slept through the night for the first time in her life, but the fever persisted. The baby at this time was in good physical condition and there were no other positive physical findings. Repeated dilations were done and the urinary infection cleared up. During the third year of life the patient developed frequent attacks of loose stools with mucous casts—

a mucous colitis. The urine at this time was negative. This condition improved under medical treatment. At the age of four and one-half years the child was in good health.

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CASE 5. Summary.—Stricture of the left ureter at the ureterovesical junction, probably congenital. Symptoms from early infancy were mostly gastrointestinal. Pyuria associated with ileocolitis was demonstrated at the age of six years. Treatment by dilatation with improvement.

Case Abstract.—Female child, aged six years, was admitted to the Children's Hospital, Los Angeles, September 4, 1925, with the complaint of fever, intestinal trouble and loss in weight. The patient had had attacks of fever, vomiting, prostration and loose stools with mucus since early infancy. These attacks had been recently more frequent and severe. Enuresis was present. The tonsils and adenoids were removed six months prior to admission to the hospital. She had been in bed for four months with a diagnosis of chronic ileocolitis, secondary anemia and malnutrition. The urine during this time had been reported as negative, as were the tuberculin and x-ray examinations of the chest. Examination on admission showed malnutrition, moderate abdominal distention and a moderate secondary anemia. The urine showed always an occasional pus cell with occasional clumps and a trace of albumen. The stool was negative for parasites. Cystoscopic examination was done by Doctor Watkins on September 14, 1925. The urethra was entered normally. The bladder was large with some trabeculations. The trigone was normal. The bladder wall was injected. The left ureteral orifice was small and round; the right was larger than normal. A number six catheter was introduced into each ureter. The urine from both sides revealed pus and *B. coli*. On the second cystoscopy it was difficult to enter the left ureter at the ureterovesical junction, but the right was entered easily. The left ureter was dilated and the urine cleared and remained clear. The patient's general condition improved, but she continued to have occasional attacks of diarrhea with mucus. She was last examined on November 8, 1928, at which time the urine was normal.

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CASE 6. Summary.—Chronic recurring attacks of pyuria associated with mucous colitis in a girl of eleven years, with symptoms from the age of five and one-half years. Cystoscopy showed no stricture, but *B. coli* infection. Instrumental treatment combined with medical treatment of colitis resulted in a cure.

Case Abstract.—Female child, aged eleven and one-half years. Since the age of five and one-half years she had been having recurring attacks of fever. These were sudden in onset and associated with malaise and pyuria. She was treated by an urologist who reported normal pyelograms. Physical examination February 27, 1927, showed a pale, slender girl with no positive physical findings. The urine showed pus and *B. coli*. X-ray picture of the gastro-intestinal tract showed that the barium meal emptied quickly with a spastic state of the colon. The blood count showed a moderate anemia. The phenosulphonephthalein output was eighty per cent in two hours. The blood nonprotein nitrogen was normal. The patient was treated by cystoscopy, which showed normal ureters and pyelograms, but a persistent *B. coli* infection on both sides. February 17, 1927, the patient developed diarrhea with mucous casts. Bed wetting was also noted. Medical treatment was directed toward the intestinal condition and an autogenous *B. coli* vaccine was given. The patient then improved and over a period of three years has been free from symptoms and the stools and urine have remained normal.

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CASE 7. Summary.—Female child, aged three years, with symptoms from age twenty-two months. Cysto-

scopic examination showed stricture of the left ureter above the ureterovesical junction. Treatment by dilatation with recovery.

Case Abstract.—Female child, aged three and one-half years. She was said to have been normal during infancy. At the age of twenty-two months she fainted and her mother stated that she seemed to have pain at this time. Following this, she was never well; continued to wet the bed at night and urinated frequently. She was highly nervous and emotionally unstable and wakeful at night. She had attacks of fever at times. There were no gastro-intestinal symptoms. The urine was reported as negative. Physical examination February 7, 1928, showed a moderately undernourished girl. The tonsils were moderately enlarged, but there were no other positive physical findings. The urine examination showed pus cells in clumps. Cystoscopic examination was made by Doctor Watkins February 14, 1928. A small cystoscope entered the urethra without difficulty. The bladder walls were fairly normal. The right ureteral orifice was slightly contracted; the left was a mere pin point. A number five catheter entered the right ureter with difficulty, but the left could not be entered with a number four catheter. Two weeks later a filiform bougie was inserted into the left ureter, after which a number six catheter was introduced and a pyelogram made. The pelvis of the left kidney was normal. The urine culture was sterile. The patient was treated by a series of seven cystoscopic examinations between the above periods and December 14, 1929, with dilatation of the left ureter and pelvic lavage. At the last examination it was noted that the left ureteral orifice was larger than when previously examined and a number six catheter passed without resistance. Since that time the urine has remained negative and the patient has been free from symptoms. The tonsils and adenoids were removed in September, 1928. There has been an improvement in disposition, appetite, etc., and the child at present appears normal.

CASE 8. Summary.—Stricture of right ureter in three-year-old girl with symptoms from two years. Treatment with recovery.

Case Abstract.—Female child, aged three years. For two years the patient had been having frequent attacks of fever with frequency of urination which had become more marked recently. She continued to wet the bed and was restless at night. There were no other symptoms noted. Physical examination November 13, 1929, was entirely negative. Cystoscopic examination November 13, 1929, showed a stenosis of the right ureter at the vesical orifice. The urine showed pus and *B. coli* on culture. Treatment consisted of dilatation of the right ureter and pelvic lavage with one-half per cent silver nitrate. By December 11, 1929, the urine was negative and the patient was improved. January 29, 1930, the patient developed an acute attack of fever lasting one week, but the urine was negative. Subsequent examinations of the urine have been negative. When last seen in February, 1931, the patient's condition was improved and the urine was normal.

CASE 9. Summary.—Multiple strictures of both ureters in female child, aged six years, with symptoms for two years. Treatment by dilatation with recovery.

Case Abstract.—Female child, aged six years. For two years she had been having intermittent attacks with chills, fever, pain in the back and vomiting associated with anorexia. Pus in the urine had been found during these attacks. The tonsils had been removed without improvement in the patient's condition. Physical examination October 21, 1930, showed a thin, pale and undernourished girl. There were no other positive physical findings. Cystoscopic examination was made October 21, 1930, by Doctor Belt. The bladder appeared normal and the ureteral orifices were normal. A number five catheter hung in two or three places in each ureter. Retrograde pyelography Octo-

ber 21, 1930, showed that the pelvis were normal, but that the ureters were constricted in five recognizable places on the right and two on the left. The urine from both kidneys was infected with *B. coli*. Treatment consisted in dilatation of both ureters. Clinical improvement was immediate. The vomiting ceased and the temperature subsided to normal. By November 29, 1930, the child's color was better and improvement was marked. January 12, 1931, the urine still showed pus and bacteria, but the quantity was much reduced. January 24, 1931, the urine was negative. January 30, 1931, the child had measles and was severely ill with a recurrence of pyuria and urinary symptoms.

CASE 10. Summary.—Stricture of left ureter at ureterovesical junction in four-year-old girl, probably congenital. Infected hydronephrosis on left. Treatment by nephrectomy with recovery.

Case Abstract.—Female child, aged four years. Since early infancy she has been having attacks of high fever associated with vomiting. These had occurred at intervals of approximately once a month. Her color had been bad and she had nocturia. Her mother had noticed that the urine contained stringy gelatinous material. There had been no improvement on medical treatment. Physical examination November 29, 1929, showed a moderately undernourished girl. Her color was good. The tonsils were moderately enlarged. There were no other positive findings, except fever and pyuria. Cystoscopic examination was made November 29, 1929, by Doctor Belt. The cystoscope entered the right ureter easily. Urine from this side showed pus and *B. coli*. The operator was unable to enter the left ureter. Uroselectan pyeloureterogram showed a normal right side, but on the left a hydronephrosis and hydroureter. May 31, 1930, the left kidney was removed. A large hydronephrosis and hydroureter was found at operation. The patient made an uneventful recovery and the urine cleared of pus and bacteria. She was last examined February 18, 1931, at which time the urine was negative and her condition was good.

CASE 11. Summary.—Pyuria with stone in right ureter. Hydroureter and dilated kidney pelvis on right with pyelonephritis. Treatment by removal of stone with recovery from pyuria.

Case Abstract.—Female child, aged five years. For the last two years she had been having attacks of fever at intervals of one to three months. These attacks lasted several days, and during this period the child lost weight rapidly. There had been noted no burning, frequency or pain on urination. Two months prior to examination, pus had been found in the urine. Examination April 19, 1929, showed a healthy appearing child. The physical examination was entirely negative. The urine showed a moderate number of pus cells, very occasional red cells and no casts; the blood count was normal. X-ray, K. U. B. plate, showed an oblong shadow $\frac{1}{2} \times 2\frac{1}{2}$ centimeters along the course of the right ureter $2\frac{1}{2}$ centimeters above the right ureterovesical orifice. Cystoscopic examination was made by Doctor Belt April 19, 1929. This showed a normal urethra. Both ureteral orifices were normal in appearance, although the right seemed to bulge. A number five ureteral catheter passed freely to each kidney without encountering obstruction. Urine specimen from the right was bloody; the left was clear. The x-ray showed that the catheter in the right ureter was coiled about an oblong shadow within the ureter. Pyelograms showed a normal kidney pelvis on the left and a dilated pelvis on the right with ureteral dilatation down to $2\frac{1}{2}$ centimeters from the bladder. Urine from the left kidney showed no pus. The urine from the right kidney showed pus and bacteria. The following day the stone four centimeters long weighing 1.7 grams was removed from the right ureter. Recovery was uneventful and the urine gradually cleared of pus. Fever had continued at intervals lasting three to four

days at a time and reaching 102 degrees in the afternoon. During these spells the child is listless, sleepy and has flushed cheeks. Physical examination on these occasions has been negative.

COMMENT

In reviewing these case histories, one is impressed by the paucity of the symptoms referable to the urinary tract. Infants and small children do not complain of pain in the kidney region or on urination. Enuresis and frequency of urination are the most common urinary symptoms noted, and as these symptoms are frequently found in normal children, they are not of diagnostic importance.

Gastro-intestinal symptoms were present in nearly all cases and are the outstanding symptoms noted. Chronic recurring attacks of pyuria are generally characterized by attacks of fever, vomiting, listlessness and anorexia occurring at intervals of several weeks or months. Nervous symptoms as irritability, restlessness in sleep and behavior changes are common. Anorexia is nearly always noted. In the small infant the outstanding symptoms are vomiting, crying, abdominal distension, diarrhea and failure to gain. The association of attacks of ileocolitis or mucous colitis was present in several of the above cases. It is a question whether this intestinal condition is primary or secondary to the kidney infection. It was found in these cases that the urinary infection improved after treatment of the intestinal condition. The frequent association should lead to a careful study of the urine in all cases of recurring colitis in children.

Marked relief of symptoms was noted after removal of the obstruction in all cases. There was improvement in appetite, color and nervous stability. Relief from symptoms after treatment was noted in some cases, although the pyuria continued. The tendency of the infection to recur demands prolonged treatment over a period of years before the case can be considered cured.

In conclusion, it should be emphasized that the cases herein presented comprise a highly selected group of eleven cases of pyuria, ten of which showed anatomic changes in the urinary tract. Such anatomic changes are not present in all cases of chronic pyuria, but when present they usually respond to dilatation, provided the obstruction has not been present to such a degree that destructive lesions have taken place. The value of cystoscopy is emphasized in all cases of pyuria which do not respond to medical treatment and which persist for many weeks. Such cases are generally allowed to go too long on medical treatment. Cystoscopic examination is not recommended in the treatment of the ordinary acute transient pyelitis of girls. It is not possible to set an arbitrary limit to the length of time medical treatment should be continued. Each case should be considered individually, the history of duration being the most important factor. The age of the patient is of no importance in deciding on cystoscopic treatment. In this series the youngest patient was thirteen days of age when cystoscoped. General anesthesia is rarely necessary. Improvement in technique and in instruments by the urologist has made this

procedure available for pediatricians for use in selected cases. Instrumental treatment in skilled hands is harmless and may lead to the clearing up of chronic and obscure cases which will not respond to medical treatment. Many cases of chronic pyuria, without demonstrable obstructive lesions, clear up after ureteral catheterization and pelvic lavage. It is likely that partial obstruction, due to edema and debris, exists not infrequently, and this yields to the above treatment. Improvement of drainage and stimulation of ureteral peristalsis are the important results of correct instrumental treatment and are the chief factors responsible for the improvement in chronic pyuria in children. The removal of chronic active foci of infection elsewhere in the body and general medical care should, of course, accompany urologic treatment.

523 West Sixth Street.

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DISCUSSION

A. ELMER BELT, M. D. (523 West Sixth Street, Los Angeles).—Doctor Happ's paper is not a discussion of end results in morbid pathology; of structural alterations so advanced that the main point of interest lies in what an exaggerated picture the anticipated autopsy may reveal. It is an account of a far more difficult diagnostic feat: the detection in very young children of pathological changes in the urinary tract which are minute and just beginning but which are devastating if unrecognized.

These changes announce themselves in their own peculiar way but only to the prepared mind. Doctor Happ here gives us his diagnostic signs and the story of what the subsequent study revealed.

Early recognition is the important thing. The soft, yielding structures of the young child rapidly dilate and are destroyed under the damaging effects of back pressure and infection.

Instrumental relief is easily applied and is followed by thrilling results if the existing damage is not too great. The possession of only a moderate amount of skill makes such studies entirely without damage. Even anesthesia, except for topical applications, is not required.



R. GLENN CRAIG, M. D. (490 Post Street, San Francisco).—That acute pyelitis is a common condition of childhood seems to be generally agreed, and any treatment, other than medical, is of recent origin. I think we are particularly indebted to Dr. William Happ and Dr. Elmer Belt for their thorough study of this condition in their effort to find the underlying cause. I know of few who have done more or better work on this subject.

I think we can all agree that, despite its frequency, pyelitis in children is an abnormal condition due to some abnormal underlying cause. The infection must take place either in a normal or an abnormal urinary tract. It is conceivable that a normal urinary tract may become infected when overloaded with large numbers of bacteria, or that where urinary stasis exists, leading to damage to the tissues of the urinary tract, a small number of bacteria may find a favorable environment, causing an infection. Heavy infection in the normal urinary tract probably is the condition present in the acute transitory urinary tract infections in children and should respond readily to medical therapy. Failure of the infection to respond to this therapy leads to a chronic condition, when other factors should be suspected. Recurrences of the infection, in the absence of any demonstrable focus, would also lead us to suspect that some abnormality of the urinary tract exists. The responsibility for determining the absence or presence of any abnormality lies with the pediatrician in conjunction with a competent urologist accustomed to dealing with children.

Doctor Happ has just pointed out the frequency of such lesions in selected cases, and has reported the gratifying results which have followed proper dilatation of the ureter. Experience will teach, as Doctor Happ has just pointed out, that symptoms caused by this condition are not always directly referable to the urinary tract. Undoubtedly, the infrequency with which this condition is recognized despite its frequency, is due to the unwillingness of the pediatrician to subject his patient to a cystoscopic examination, but with the improvement in the technique in children, I think he has much less to fear. I remember one extreme example of a little girl seen by a well known pediatrician. This girl weighed seven pounds at birth, gained normally for four months, and at the end of one year weighed six pounds. She had been treated medically for three months for pyuria before the pediatrician would consent to cystoscopy. Immediate improvement followed ureteral dilatations. This was five years ago, and I am sure no pediatrician would be so reluctant today.

You might ask when a cystoscopic examination should be recommended? We think it plausible to suggest as a working rule that all cases of chronic pyuria, that have persisted for more than six or eight weeks, or any case of recurrent pyuria, deserves a cystoscopic examination.



DONALD A. CHARNOCK, M. D. (523 West Sixth Street, Los Angeles).—Doctor Happ has given us an excellent discussion on pyuria in children. His paper has emphasized the necessity for early recognition and accurate diagnosis of these urinary lesions in order that rational treatment may be offered.

For the urologist the study and treatment of urinary diseases of infancy and childhood offers a hopeful field of endeavor. Here we ordinarily see early pathological conditions which, unrecognized, progress to serious and not infrequently to terminal lesions.

The mechanics of urinary investigation have been brought to a high degree of usefulness. Instruments have been devised which offer the youngest infant possibilities of complete urological study and treat-

ment. The cystoscopist trained in the handling of children rapidly acquires a delicacy of technique which renders unnecessary the use of full anesthesia.

Urinary infections in childhood are too often neglected for lack of an adequate understanding of the primary pathology encountered.

CORONARY SCLEROSIS—AS SEEN IN A CORONER'S OFFICE*

By ADOLPHUS A. BERGER, M. D.
San Francisco

DISCUSSION by A. M. Moody, M. D., San Francisco;
Paul Michael, M. D., Oakland.

THIS paper will present a tabulation relative to coronary sclerosis as seen in a coroner's office for a period covering the past three years. The writer will give a résumé of its incidence, types, and will show slides taken from specimens.

In this summary, records have been made to include all types of coronary disease and to tabulate separately those cases in which the coronary disease was considered as the fatal cause; also those cases in which it was a complication of other diseases. The demonstrations include: (1) coronary thrombosis with myocardial infarction; (2) coronary sclerosis with occlusion; (3) luetic changes in the muscle including gummata; (4) nodular sclerosis with active mesarteritis; and (5) extensive degeneration of the myocardium secondary to coronary sclerosis and thrombosis.

There are also two interesting cases in which there was recanalization of the coronary vessels. Both of these cases have marked coronary disease with thrombosis, scarring and fibrosis. In either case there are noted some thirty vessels of various sizes within the lumen of a single coronary vessel. In both instances this process occurred in the left anterior branch.

The summary of the findings reveal that coronary thrombosis, at least coronary occlusion, is not an uncommon cause of death; that death may intervene in almost any state following the occlusion. By this I mean that in some instances there is noted a complete coronary occlusion *per se*; or a coronary occlusion with infarction; or a mural thrombosis; or myomalacia with marked muscle softening, or finally, spontaneous rupture of the vessel wall may be present. Some of the cases in which there was a spontaneous rupture of the heart wall have been reported elsewhere. Many of the cases considered here have been considered as the "prerupture" type. By that is meant that the findings are those commonly noted in spontaneous rupture except that death occurred, probably, before any rupture. In the cases noted above, most of the different types of coronary disease were noted. Thus there was the pipe-stem type, this type showing marked atheromatous degeneration with calcification; the type noted as the result of an inflammatory process suggestive of lues, and the nodular type of sclerosis.

From the records it is noted that practically eight per cent of all the natural-cause deaths, re-

* Read before the Pathology and Bacteriology Section of the California Medical Association at the sixtieth annual session, San Francisco, April 27-30, 1931.

TABLE 1.—Coronary Disease as Seen in a Coroner's Office.—For the City and County of San Francisco.

	Year 1928			Year 1929			Year 1930		
	Number	Per Cent of Natural Deaths	Per Cent of Total Deaths	Number	Per Cent of Natural Deaths	Per Cent of Total Deaths	Number	Per Cent of Natural Deaths	Per Cent of Total Deaths
Total autopsies	1601	.....	.....	1537	.....	.....	1616	.....	.....
Accidents	482	.....	30	459	.....	29	513	.....	31
Homicides	35	.....	2.2	38	.....	2.5	39	.....	2.5
Suicides	246	.....	15.3	241	.....	15.5	260	.....	16
Abortions	7	.....	.4	15	.....	1.	7	.....	.5
Total natural deaths..	831	.....	51	784	.....	51	797	.....	49
Ruptured hearts	14	1.6	.8	18	2.3	1.1	11	1.4	.7
Ruptured aneurysms..	7	.9	.4	21	2.8	1.2	14	1.7	.8
Coronary sclerosis with occlusion	13	1.5	.8	18	2.3	1.1	26	3.4	1.6
Coronary thrombosis..	14	1.6	.8	21	2.3	1.2	30	3.9	1.8
Other natural deaths where coronary disease is present	360	46	.....	318	45	.....	345	44	.....

ferred to the coroner's office in San Francisco City and County, were absolutely due to coronary disease in some one or other of its acute or chronic manifestations. It was also noted that coronary disease was present to some degree in 50 per cent of all the natural-cause deaths referred to the coroner. The actual age average in those deceased persons in whom the coronary disease was the immediate cause of death was fifty-three years; and in those in which the coronary disease was present but not the immediate cause of death the age average was forty-two years, the ages ranging from twenty-six to seventy-nine years.

It was also found that the most common site of fatal coronary disease manifested itself in the left side of the heart, either in the septal branch or in the descendens branch of the left coronary artery. It is surprising to note that in this series this occurred in 88 per cent of all the cases in which death was due to coronary disease alone. None of the cases in this series showed blockage from fragments of valvular vegetations either at the coronary orifice or within the coronary vessel itself. In the series here reported, coronary occlusion was found to be almost always due to a thrombosis.

In the accompanying table are given some statistics from the coroner's office of the city and county of San Francisco for the past three-year period. It is rather interesting that the figures for the period of three years should be so much alike. However, the incidence of coronary occlusion has gradually increased so that in 1930 it was practically twice as prevalent.

202 Clement Street.

DISCUSSION

A. M. MOODY, M. D. (Saint Francis Hospital, San Francisco).—This report of Doctor Berger's on coronary sclerosis, as seen in a coroner's office is especially interesting to me, and is a valuable report from a statistical standpoint. It has been my privilege to

study, histologically, the coronary arteries and hearts of most of the patients included in this report.

This study has revealed the presence of recanalized (the healed occlusion of some previous thromboses) occluded coronary arteries more frequently than the literature would lead one to believe.

One of the unfortunate points in this work is the fact that complete histories of past illnesses and previous attacks of symptoms referable to the heart are not obtainable in the majority of instances.

However, we do feel that there must be many instances of occlusion of the septal branch of the left coronary artery from which individuals will recover and live for many years without symptoms of cardiac disease. A good collateral circulation is the important factor.

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PAUL MICHAEL, M. D. (Peralta Hospital, Oakland). This excellent paper emphasizes more than ever the importance of "sudden death" pathology, especially in relation to deaths due to cardiac lesion. The bodies of such patients come under the jurisdiction of the coroner's office, hence pathologists and clinicians generally, both in large medical centers and teaching hospitals do not have the opportunity of extensive observation on this subject. We are indeed fortunate and indebted to Doctor Berger for this study and compilation.

Many of the coronary lesions so observed give evidence of some chronicity, with peripheral vacuolar degeneration, fibrosis, and frequently attempts at canalization. Deaths in these instances are due to extension of the thrombus, occlusion of the vessel, or to sudden ischemia with relatively little obliteration of the vessel lumen. The fact that the septal branches of the descending branches of the left coronary are more commonly involved becomes of greater significance when one realizes that not only is the left ventricular wall attacked, but that the auriculoventricular bundle is usually involved. In these instances the crus commune of the bundle shows hyaline changes, with pyknosis and karyolysis of the cells, intracellular fat droplets, and actual intercellular hemorrhage.

That coronary artery disease in its most serious phases may be of long-standing duration, is seen in cases of rupture occurring without premonitory symptoms.

One additional interesting feature is that coronary artery disease, traditionally known as the particular property of physicians, is becoming an infrequent cause of death among the medical profession.

FREE SKIN GRAFTS OF LESS THAN FULL THICKNESS*

CAUSES FOR THEIR FAILURE OR SUCCESS

By JOHN HOMER WOOLSEY, M. D.
San Francisco

DISCUSSION by W. S. Kiskadden, M. D., Los Angeles; J. H. Breyer, M. D., Pasadena; George Warren Pierce, M. D., and Gerald B. O'Connor, M. D., San Francisco.

FREE skin grafts of less than the usual thickness, such as the "pinch" or Reverdin, the Ollier-Thiersch, and the split-skin¹ types are being used more frequently than ever before. Skin grafting for burned areas, ulcers, defects resulting from extensive surgery for malignancy, and for cicatricial defects, is being done earlier and more often, with a resultant saving in the cost of medical care, an earlier return to earning power, and increased comfort to the patient. The percentage of successful grafts, however, is entirely too low. From a cursory observation of clinics visited, in addition to fifteen years' observation, I estimate that only about 65 per cent of such skin grafts "take" successfully. In my opinion, a marked improvement in this percentage can be made by giving adequate attention to an often neglected but most important detail—the *dressing*.

SCOPE OF THIS PAPER

The source of the grafts, the surface to be grafted and its preparation, the method of taking the graft and its transference to the area to be grafted, the size and the depth of the graft are important, but discussion of these aspects is omitted purposely. Suffice it to say that autografts only are recommended; that an uninfected, nonweeping and nonbleeding, fine granulating or fresh surface, treated with physiologic salt solution, rather than with antiseptics, is preferred; that when a thick layer of dense granulation tissue is present, its removal by excision rather than by curetting gives the best result; and that immediate transference of the graft direct, rather than via intermediate salt solutions or allowing it to dry for an instant on rubber or cellophane patches, is most important. The size of the graft is not so important, provided that a sufficient number of buttonholes are made to allow the escape of any accumulating lymph that would otherwise float off the graft. The depth of the graft affects the final result in its cosmetic and functional aspects, but it does not affect the take.

THE VIABILITY OF THE GRAFT

A free skin graft lives a parasitic life for the first forty-eight hours, dependent upon absorption of plasma or lymph from the host. Capillary connection forms with the host's local blood supply and by the fifth day a graft, if successful,

will have a very firm attachment and a pinkish white or pink color. At times the epidermis will slough and disappear, thereby losing the usual opacity of the graft, suggesting a failure in the take.

However, by the eighth or ninth day, with proper atraumatic care and exposure of the grafted area to the air for from ten to fifteen minutes, there can be made out a dull, dry, smooth covering significant of a definite epithelial layer. The viability of the graft, therefore, depends upon the establishment of sufficient circulation and, in turn, the assurance of sufficient lymph and blood supply depends upon the perfect and continuous contact of the graft with its bed. *Constant and perfect approximation* of the graft is, therefore, the essential of all treatment at this stage. This is obtained by the proper choice and application of a dressing that prevents shifting or lifting of the graft from its bed. Too often after a skin graft procedure has been done with assiduous and painstaking care this most important step is left to an inexperienced intern or nurse. Collier² put it well when he said, "Other things being equal, the final result will vary with the technique of the postoperative dressing."

THE DRESSING

No single type of dressing is recommended above all others, but the object which any dressing should attain is definite. In my experience the moist or wet dressing has no uniform advantage over the dry. It is true, however, that when properly managed the wet dressing will remove the excess tissue secretion without trauma. On the other hand, wet dressings often are left as cold, soggy compresses that constrict the local vascular system and decrease the blood supply for the grafts. Pressure is valuable in holding the graft firmly against its bed, but is of slight importance in this type of graft since simple immobility and a proper field free from superfluous lymph or blood extravasation are sufficient to allow the graft a vital foothold. Thorough splinting of mobile areas, as in the region of joints, always should be done. Strapping the dressing in place is of utmost importance and should be so carried out that the adhesive tape is made adherent close to the grafted area, thereby permitting less motion than when strapped at a distance. Whatever dressing is employed, therefore, must achieve *constant and perfect approximation* of the graft to its bed.

The following types of dressings have been used with success:

1. Open air with screen protection.
2. Silver foil.
3. Vaseline gauze.
4. Paraffin spray.
5. Gutta-percha tissue in strips, with or without overlying wet dressings.
6. Paraffin gauze, with or without overlying wet dressings.
7. Cellophane, perforated, with or without overlying wet dressings.

* From the Department of Surgery, University of California Medical School.

¹ Read before the General Surgery Section of the California Medical Association at the sixtieth annual session at San Francisco, April 27-30, 1931.

8. Bland ointment.
9. Adhesive tape.
10. Suturing.
11. Sea sponge.
12. Synthetic or rubber sponge.
13. Vaseline gauze pack.
14. Mould (stent) sutured in place.
15. Tunnel graft.
16. Implantation graft.

The *open-air type of dressing* is obtained by the use of ordinary fly-screen cut and folded to fit, bound on all edges with adhesive tape, and anchored firmly in position by adhesive strapping. It should be maintained for approximately four days. This type of dressing prevents any contact of dressings to the graft and unless the graft is floated from its bed by blood or lymph it remains in constant and perfect approximation. It is of advantage over joint surfaces, the neck, the chest, and the abdomen where movement occurs. The cervical region is especially difficult to immobilize completely for the acts of swallowing, coughing, or sneezing allow uncontrollable movement and a dressing in contact with a graft in this area frequently will hold the graft adherent to it so that, when the bed moves, the blood supply is lost. Crusts tend to form about the edges of the grafts in a minor percentage of instances and for these, at the end of the initial four or five days, is recommended a dressing of sterile, bland ointment and warm, sterile, normal salt solution compresses alternated until the crusts soften and come away by themselves.

Silver foil, the most practical of the metal foils as a dressing, remains firmly in place, separates without the danger of lifting the graft from its bed, and possesses in addition some reputed anti-septic powers. The leaves of silver are applied in several layers, held in contact by repeated fine sprinkling with sterile normal saline solution, covered by a sheet of the intervening tissue paper, sponged down with normal saline; over this a layer of gauze is laid, and strapped firmly into place by adhesive tape. In the majority of instances this dressing can be left undisturbed until it automatically separates, but, under any circumstances, it should be left undisturbed for four days when it can be removed, if desired, by hot sterile salt solution compresses and ointment applications. This dressing is applicable to all immobile areas, as the hand, arm, chest, abdomen, and leg.

Vaseline gauze, consisting of strips of gauze impregnated with pure vaselin or, better yet, with vaselin to which has been added a small amount of paraffin, provides a very satisfactory dressing if well strapped in position. This should be changed in approximately four days, as a considerable amount of tissue secretion accrues and causes soggy of the underlying tissues. This dressing is adaptable to all immobile areas.

Paraffin mixture dressing is an excellent type for immobile areas. It is obtained by the application of layers of the paraffin mixture—the first

coat by spraying on and the later coats by brush, alternated with layers of gauze placed in a manner similar to the fabric in an automobile tire casing. The whole dressing is then anchored in position with adhesive tape, covered with cotton or some material to hold the body heat, thereby keeping the paraffin mixture in a flexible state, and bandaged securely. The grafts do not adhere to the paraffin mixture, as a rule, and the paraffin does not creep under the graft. This dressing usually should be changed on or about the fourth day, but may be left until the tenth day, depending upon the amount of tissue secretion present.

Gutta-percha tissue laid on in interlacing basket-weave strips; paraffin mesh; or perforated cellophane, when well anchored in place by adhesive, are all satisfactory for immobile surfaces. They are suitable for dry dressings and they have the added advantage that wet sterile compresses may be placed over them, thereby removing any excessive tissue secretion or desquamating epithelium without need of changing the material in immediate contact with the grafts.

Bland ointment dressings, such as two per cent xeroform in vaselin, boric ointment, etc., are preferred by some, but are not recommended because of the tendency to permit some shifting of the grafts; the possibility of ointment working under the graft edge; insecurity in pressure from the bandaging, and because they usually are accompanied by a greater tissue secretion and softening of the superficial epithelium of the grafts. It is true, however, that the grafts do not adhere to the dressing.

Adhesive tape gives immobilization, but the grafts often adhere to it and, with its removal, are torn away. It is mentioned only to be condemned because of this tendency. However, this type of dressing has its successes if it is left in place for approximately ten days, by which time the epidermis of the grafts has softened and loosened, and is removed only after the application of wet compresses.

Suturing the edges of the skin graft and, in instances of grafts larger than one inch in diameter, through the body of the graft as well, provides a more certain and constant approximation. This idea can be used with any of the several types of dressings and is recommended. The most satisfactory type of suture is that of an impervious material such as fine dermal or horse-hair.

The *sea sponge and synthetic (rubber) sponge dressings* are used chiefly in the skin graft of full thickness for pressure purposes and, while unnecessary in the skin grafts of less than full thickness, they may be employed with value over other dressings for immobilization purposes. If bandaged as bandages are usually applied, which is estimated to be five to ten millimeters of mercury pressure, they do no harm and will help to keep the grafts firmly against their bed. This method is best carried out by the use of pervious material such as perforated cellophane next to

the graft, covered by a few layers of gauze, then the sponge over this, bandaged into position. This type of dressing is adaptable to any area where bandaging to hold the sponge in place is practicable.

Certain *special pressure methods* which give complete immobilization for the free skin grafts of less than full thickness were developed during the war period by Esser³ of Holland and Gillies⁴ of England. They are applicable to areas irregular in shape, as between the fingers, the external ear, over surfaces that have movement such as the eyelids, in the lining of inaccessible areas such as the interior of the nose, mouth, anterior urethra, or external auditory canal, and about the mouth. In the latter situation there is not only movement, but there is also the menace of the buccal secretions and a soft area against which an ordinary dressing cannot be placed firmly. Dental compound is employed as a mould, for it is malleable with heat and can be fitted exactly to the area for skin grafting. Over this mould or stent the skin graft is draped, then inserted into the pocket to be grafted and held so by a few interrupted, nonabsorbable sutures running over the top of the mould from either side. Before taking the graft, if one wipes a thin coat of vaselin over the skin, sufficient to fill only the pores of the skin, the graft clings in a better manner to the mould.

The Esser inlay for widening the cheek is such a pressure dressing. It is accomplished by burying the mould covered with the skin graft in the cheek via an external incision, closing the incision completely, and five or six days later removing the mould through an opening from the buccal side of the cheek. The sulcus between the alveolar ridge and the cheek can be deepened for an artificial indenture by a graft over a mould placed in the raw area within the mouth and sutured firmly in place. In an inaccessible area needing an epithelial lining, such as the nostril, external auditory canal, or eye socket, a large graft can be held firmly and constantly against the area to be grafted by stuffing or filling the graft out with vaselin gauze. This gauze packing can be removed later with ease where a firm obturator, such as the dental compound mould, cannot. For hypospadias or epispadias the placing of a graft in the anterior urethra over a firmly fitted and immobilized soft rubber catheter insures perfect and constant approximation to its bed. These moulds, be they dental compound, paraffin, vaselin gauze, or rubber catheter, should be left undisturbed for approximately five days and, as a rule, are successful.

The *tunnel graft*,⁵ as devised at the Walter Reed General Hospital, is an adaptation of the Esser inlay. It is effected by tunneling through a band of tissue, such as an eversion of the lip or a contracting fold, then drawing into this tunnel a skin graft either over an obturator or not, and later, after five or six days, cutting through from the external skin surface to the tunnel-grafted

skin. The contracted area then unfolds and the deformed area is lengthened. This method is especially applicable to the everted lip for the graft for, thus buried, it is clear from drooling buccal secretions or contamination from food or drink.

The *implantation graft*⁶ is a very useful type and is accomplished as follows: millimeter-sized pieces of skin grafts of less than full thickness are cut, and these pieces are pushed down into the granulation tissue of an ulcer instead of being placed on the surface. This insures perfect and constant approximation of the graft to its bed and, as the islands of skin that arise coalesce, far earlier healing of the ulcer occurs. This method is especially applicable to leg ulcers in ambulatory patients and provides a means of skin grafting for patients in whom the usual surface measures are not over 25 per cent successful, under similar ambulatory treatment.

CONCLUSION

1. The successful take of a skin graft of less than full thickness is dependent upon the establishment of an adequate blood supply.
2. Holding the graft so that such an adequate blood supply may develop is a most important part of the procedure and is of sufficient importance to demand the care of the surgeon himself.
3. Various types of dressings are suggested, but they must measure up to certain requirements that will assure success.
4. *Constant and perfect approximation* of the skin graft to its bed is the essential requirement.

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DISCUSSION

W. S. KISKADDEN, M. D. (1930 Wilshire Boulevard, Los Angeles).—I am in complete accord with Doctor Woolsey's major argument that the success or failure of skin grafting is dependent upon a dressing that will hold the graft in firm, accurate apposition to the area to be grafted.

I do not believe, however, that one can segregate grafting as to treatment and dressing in groups limited merely to full and nonfull thickness grafts. For example, I feel that practically all Theirsch grafts should be held in place with dental modeling compound. This procedure eliminates buttonholing the graft for drainage, holds it immobile and in closer apposition to the area to be grafted, and may be applied to any portion of the body with equal facility. It has given me results infinitely superior and more constant than any other form of dressing. However, in using pinch, small deep or Reverdin grafts, the use of the various measures outlined in detail by the essayist are of value. In this type I prefer the use of perforated cellophane held in position with ad-

hesive and covered with a thin layer of gauze, and finally held immobile by a sea sponge. Pinch grafts require firm pressure to flatten them out and any dressing that loses sight of that factor will tend to lose a rather large percentage of grafts. Mention is made of the tunnel graft. These are of value in contractures and particularly in leg ulcers, where they may be used even in the presence of a dirty, grey, indolent, granulating surface. Their success here, I believe, is a direct tribute to the value of a firm dressing.

The author stated that pressure is of value, but that it is third in importance to simple immobility and a field free of lymph and blood. It seems to me that the latter two conditions may be usually obtained if adequate pressure is applied and, accordingly, I feel that it is, instead, the first and all important factor governing skin grafting.

I would urge, in the treatment of hypospadias or epispadias, the use of Theirsch graft as a last resort only and because no other tissue is available for flaps. Contraction, which is often as much as 60 per cent, will mitigate against good results. In the absence of suitable flaps the appendix may be used in these cases as a lining.

I feel a word regarding the dressing to be applied to the area from which the graft was taken is indicated. In Theirsch or split skin, it is my plan to paint the area with compound tincture benzoin and allow the dressing to stay in place without re-dressing for twelve to eighteen days, depending upon the depth and size of the raw area dressed. The skin underneath will be usually entirely healed in that time. This procedure obviates the frequent dressings when vaselin or a grease preparation is used. The use of three per cent xeriform vaselin gauze in dressing the area following removal of small deep and Reverdin grafts will be found of value.

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JOHN H. BREYER, M. D. (701 Professional Building, Pasadena).—Doctor Woolsey has very thoroughly stressed the underlying principles of successful skin grafting. The merits and advantages of the various types of dressings have been fully evaluated. He has given us a logical and complete résumé. The reason why skin grafting is not more generally used is the uncertainty of results. I am much interested in the use of skin grafts following operation for carcinoma of the breast. We have all made the mistake of not removing enough skin. I wish to call your attention to an article on "Technique of the Complete Breast Operation," by Edwin I. Bartlett, M. D., of San Francisco, appearing in the January 1931 number of *Surgery, Gynecology, and Obstetrics*. In this article Doctor Bartlett gives an excellent description of the use of skin grafts in radical breast operations.

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GEORGE WARREN PIERCE, M. D., AND GERALD B. O'CONNOR, M. D. (490 Post Street, San Francisco).—The dressings and postoperative care of skin grafts are two very important points that cannot be over-emphasized if one is to culminate tedious work with a successful "take." We are quite happy to see that Doctor Woolsey stresses *constant and perfect approximation*. This, we believe, is the all-important factor in free skin grafts for it (1) promotes healing; (2) decreases oozing; (3) eliminates drainage; (4) inhibits infection; (5) prevents, to a degree, contractions; and (6) supplies rest to the healing areas.

It is not, however, a panacea for all the ailments that the surgeon doing the grafting falls heir to. One must have a thorough knowledge of the behavior of the skin, selectivity in the type of graft, physiological and anatomical knowledge of the base to be grafted, and a thorough conception of the types of dressings to be employed, considering the conditions at hand. No one procedure will suffice, so versatility in one's armamentarium will pave the way to success.

PREOPERATIVE MEDICATION*

By CAROLINE B. PALMER, M. D.
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THE preoperative medication to be considered in this paper is limited to that which has a direct bearing upon the anesthesia—such pre-medication as may properly be regarded as a part of the anesthetic.

PURPOSE OF PREOPERATIVE MEDICATION

It is commonly conceded that the purpose of preoperative medication is (a) to prevent psychic shock, and (b) to regulate metabolism. These two objects accomplished, we have as a direct result (c) elimination of any stage of excitement, and (d) the possibility of maintaining a lighter degree of anesthesia or of using a less toxic anesthetic than would otherwise be required.

The final result is a better postoperative condition of the patient, greatly decreased postoperative discomfort, and delayed postoperative pain.

We frequently hear or read the remark that the perfect anesthetic has not yet been found. All of us admit the truth of this statement, but it is probably equally true that no single anesthetic agent will ever be found which can fulfill all of the requirements of a perfect anesthesia. It seems that we must rather look for the perfection, at which we aim, to properly selected adjuncts to the anesthetic agents which we already have. It does not seem reasonable to expect a balanced anesthesia by administering a single anesthetic agent any more than to expect a balanced diet by the use of one kind of food. The single agent may produce anesthesia, the single article of diet may satisfy hunger and both have the virtue of simplicity, but both fall short of meeting the reasonable requirements of the case.

In anesthesia, more perhaps than in most other medical matters, it is necessary to consider the patient as a whole. It is impossible, without inviting disaster, to ignore the mental and emotional sides of his being. Someone has said that the frightened patient is already half-shocked, and that statement is certainly more than half true.

Many of our foremost surgeons believe in pre-medication for especially nervous patients. Current medical literature is full of references to this subject, coming from all classes, from eminent members of the medical profession down to those who are engaged in propaganda for some one of the so-called basal anesthetics.

The fact of the matter is that all conscious patients, except infants, who come to operation without adequate preliminary medication are more or less apprehensive and many of them are actually frightened. It is also a fact that those who suffer most are usually not the ones who give the greatest outward evidence of fear and nervousness. This is shown in the course of the anesthesia. The patients who have a definite stage of excitement are nearly always the ones who sup-

* From the Services at Stanford University Hospital.

* Read before the Anesthesiology Section of the California Medical Association at the sixtieth annual session, San Francisco, April 27-30, 1931.

press every evidence of fear until their volition is abolished. This does not apply to alcoholics, who without proper medication almost invariably pass through a stage of excitement.

The result of preoperative nervous strain not only frequently causes a stage of excitement with its attendant dangers, but persists throughout the anesthesia, as evidenced by the character of pulse and respiration and by the fact that a much deeper anesthesia is required. Such patients are likely to have a stormy recovery with nausea and vomiting, partly due to nervous causes¹ and partly to the deeper anesthesia. The far-reaching effect of preoperative nervous strain may be seen in some instances of delayed convalescence or incomplete convalescence. Probably all of us have seen patients who became invalids after operations which were entirely satisfactory from a surgical standpoint.

Cannon has shown that actual physical changes may be caused by psychic shock, fear, and anxiety.²

Doctor Mehrtens has stated that, from a neuropsychiatric angle, he feels sure that fright, anxiety, and other emotional troubles previous to an operation tend to waste the energy of the organism in such a way that it is not available for the necessary expenditures incident to the operation and convalescence, and that this fact cuts down the margin of safety which partly determines the success or failure of an operation. When dealing with the class of individuals whose margin of safety is minimum, it is of the greatest importance to reduce the wastage of energy. Preoperative medication has its greatest sphere of usefulness in this type.³

Anesthetic deaths occur most frequently in minor operations on unprepared patients, and the lack of premedication may well be a factor.

NEED OF PREMEDICATION FOR CHILDREN AND THE AGED

Among those patients who suffer needlessly because of the omission of premedication are children and the aged. The belief is prevalent that because such patients are too young or too old to be given morphin that no preliminary medication is necessary. The young children who require repeated operations show their fear by an agonized wail the moment they realize that they are in the operating room. Life is a hard proposition to these little mortals at best, and the repeated periods of fear, growing worse with repetition, cannot do otherwise than cause great and possibly far-reaching psychic injury. The old people are quiet, but sometimes the expression of despairing resignation in their eyes would touch the heart of a graven image. Such patients, and all others, should be given the benefit of every preoperative measure that will in any way serve to abolish, or at least mitigate, their fear.

GOOD PSYCHIC STATE DESIRABLE

That patients may be brought to operation in the best possible psychic state requires attention to many details. From the moment they enter the hospital door they should receive courteous con-

sideration from every person with whom they come in contact. The surroundings should be as pleasant as possible. Much has been done in this respect in every up-to-date hospital, but I believe that all of us will agree that there is still room for improvement.

The preparation of the patient and the trip to the surgery should be made without any appearance of haste. The anesthetic room should be ready before the patient arrives. The excited scurrying about of nurses and orderlies to prepare the room while the patient waits where he can see and hear all that is going on is certainly not conducive to calmness of mind.

Keeping an already nervous and apprehensive patient waiting in the anesthetic room, or still worse, in the operating room, is one of the things that Dante did not know about or he would certainly have included it in his "Inferno."

Psychotherapy is a definite aid in the prevention of psychic strain, but its application is limited for obvious reasons.

Various means have been suggested as aids in bringing about a state of mental calm.

The influence of color is important and much good work has been done in determining what colors act as mental irritants. Certainly glaring white walls, white drapes, and a strong light make an unfortunate combination.⁴

A few surgeons and anesthetists advocate the playing of soft, soothing music during the induction of anesthesia, and some even favor having continuous music during operations under local anesthesia. Personally I feel that if I were taking an anesthetic and someone turned on a phonograph or a radio that I would rise right up and commit some act of violence.

A well-known anesthetist tried the experiment of singing to his patients while administering anesthetics. On one occasion he was giving straight ether to a child and was singing a selection which he thought would have the desired effect. After a moment the child looked up and said, "Please, Doctor X, won't you just give me the ether?"

All who are familiar with the conditions which obtain in any large hospital, even one of the best, must realize that it is absolutely impossible to protect patients from many influences likely to cause mental disquiet. If we are really to accomplish protection from psychic trauma, we are forced to depend largely upon premedication. Even in the rare instances in which it is feasible to control the mental and emotional faculties by means of psychotherapy, we should still usually need premedication for its effect upon metabolism.

SELECTION OF DRUGS FOR PREMEDICATION

This brings us to a question about which there is a wide difference of opinion—the rational selection of drugs for premedication. We must choose such drugs as will accomplish our purpose without adding to the patient's danger. In fact, the proper premedication should greatly increase the patient's safety.

Our knowledge of even the old, known and tried hypnotics and sedatives is insufficient. The

results of pharmacologic research are often contradictory, and in some of the work from which conclusions are drawn the dosage does not correspond to the therapeutic doses in man.

Undue enthusiasm for certain of the new so-called basal anesthetics has brought sorrow to certain members of our profession and distrust to many others. The high pressure salesmanship of various commercial interests has influenced some of us more than we would care to admit. To call a substance a basal anesthetic when it is not properly an anesthetic at all is misleading.

Of the drugs which have caused much discussion, the barbitals hold high rank. Their number is already great and the possible additional products from further chemical variations in the barbitol molecule is appalling. Doctor Hanzlik states that it has not been possible to amplify the margin of safety in therapeutic usage, as the activity of the derivatives has been increased. He believes that the claims of greater efficiency, usefulness, and safety for the new and exploited barbitals should not mislead anyone; that anesthesia may be attained by their use only at the expense of general poisoning, considerable circulatory collapse, and prolonged postoperative depression.

He approves of the proper use of barbitals for premedication, but believes that the official barbitol and phenobarbital can fill every legitimate use.⁵

In clinical work, the keeping of accurate and complete records and some plan for an extensive unprejudiced comparison of results would accomplish much.

The clinical experience of a large number of the foremost surgeons and anesthesiologists should be of value in determining the drugs or combinations advisable for premedication.

Many efforts have been made to obtain the opinions resulting from such experience.

NATIONAL ANESTHESIA RESEARCH SOCIETY
QUESTIONNAIRE

In 1920 a questionnaire was sent to a group of hospitals by the National Anesthesia Research Society. Two hundred replies were received.

- 96 favored the use of morphin and atropin.
- 20 favored the use of morphin alone.
- 10 favored the use of atropin alone.
- 34 used other drugs not specified.
- 18 did not favor premedication.
- 22 had no records.⁷

In 1925 Dr. M. A. Slocum reported in the *Journal of the American Medical Association* the result of a questionnaire sent to one hundred leading surgeons. Seventy-three replied.

- 58 favored the preoperative use of morphin.
- 15 were opposed to the preoperative use of morphin.
- 24 favored its use in children.⁸
- 49 opposed its use in children.

In 1925 I sent letters to a large number of anesthesiologists asking for opinions based upon their personal experience in regard to premedication.

- 42 favored the use of morphin and atropin.
- 4 favored morphin alone.
- 22 favored scopolamin in some combination and reported satisfactory results.

- 10 reported bad results from combinations containing scopolamin, these being depression of respiration, excitement, collapse.
- 6 favored atropin alone in selected cases.
- 7 favored magnesium sulphate in some combination.
- 9 reported bad results with magnesium sulphate, these being depression of respiration and pain at site of injection.

The lower age limit for premedication was given as four to sixteen years, the majority favoring six to seven years.

STANFORD UNIVERSITY HOSPITAL
QUESTIONNAIRE

In March 1931, the surgical department of Stanford University Hospital sent a questionnaire to five hundred representative surgeons and anesthesiologists. Three hundred and twenty-six replied. Three hundred and seven replies were tabulated.

Regarding premedication:

- 303 approved of premedication.
- 4 did not approve of premedication.

Regarding drugs:

- 283 approved of the use of morphin.
- 7 did not approve of the use of morphin.
- 212 preferred morphin and 43 preferred pantopon.
- 253 approved of the use of atropin.
- 32 did not approve of the use of atropin.
- 373 approved of morphin and atropin combined.
- 23 did not approve of morphin and atropin combined.
- 159 approved of the use of scopolamin.
- 117 did not approve of the use of scopolamin.
- 169 approved of the use of morphin and scopolamin combined.
- 113 did not approve of the use of morphin and scopolamin combined.
- 197 approved of the use of sodium amytal.
- 68 did not approve of the use of sodium amytal.
- 180 approved of the use of other barbitals.
- 86 did not approve of the use of other barbitals.
- 31 approved of the use of sodium bromid with barbitol.
- 263 did not approve of the use of sodium bromid with barbitol.
- 103 approved of the use of avertin.
- 90 did not approve of the use of avertin.

Regarding certain factors in premedication:

- 293 regulated premedication by age, weight, and general condition.
- 8 did not regulate premedication by age, weight, and general condition.

As to lower age limit:

- 22 gave nothing under 3 years.
- 49 under 4 to 6 years.
- 50 under 7 to 10 years.
- 41 under 11 to 15 years.
- 3 under 16 to 18 years.
- No lower age limit, 133.

As to upper age limit:

- 9 69 years.
- 12 79 years.
- 22 above 70 years.
- All others, no upper age limit.

ANALYSIS OF STANFORD UNIVERSITY HOSPITAL
STATISTICS

The members of the anesthetic department of Stanford University Hospital have examined a large number of anesthetic records as to premedication:

- 22,579 cases before 1925.
- 19,951 cases since 1925.
- 17,353 cases before 1925 had premedication.

16,671 cases since 1925 had premedication.
 5226 cases before 1925 had no premedication.
 3280 cases since 1925 had no premedication.

The records before 1925 plus those since 1925 give a total of 42,530 records examined, and a total of 34,024 cases with premedication, and 8506 without premedication.

PROCEDURES IN THE PAST AT STANFORD UNIVERSITY HOSPITAL

Before 1925, the premedication was virtually limited to morphin and atropin or morphin alone, or in a very few instances (sixty-two) to atropin alone. In one small series of cases a combination of morphin and scopolamin was used. This was abandoned because of varying degrees of respiratory depression, some of which were alarming. Later we found that by making sure of fresh preparations of scopolamin the results were satisfactory.

Since 1925 the majority of patients have still had morphin and atropin, but there has been a growing conviction that neither this combination nor morphin alone affords sufficient psychic protection, and other drugs have been used with increasing frequency. Whatever has been given, however, has generally been combined with an opiate, as we feel that this is usually a necessary element in proper preliminary medication.

Crile says that the preoperative use of morphin serves the double purpose of diminishing the preoperative psychic strain and actually preventing, to some extent, the damaging of the organs of the kinetic system by the trauma of the operation.⁹ It is difficult to prove the second part of this statement, but our clinical experience seems to suggest its truth.

In 1929, we used sodium amytal intravenously for a series of cases as reported by Doctor Holman.¹⁰

The results of this series were eminently satisfactory, but as we recognize the objection to intravenous administration, we now give the drug by mouth.

THE USE OF SEDATIVES

As a good night's sleep preceding the day of operation is necessary in order that the patient's normal resistance may be unimpaired, a sedative the night before may be regarded as a part of the preliminary medication.

On the day of operation it is desirable to give a sedative some two hours before the event in order to abolish the dread which is otherwise likely to increase as the time of the ordeal approaches. Half an hour before operation, an opiate is given. Supposing the selection of drugs used and the dosage to have been correct for the individual patient, he should be asleep or at least drowsy and indifferent to his surroundings by the time that the dreaded trip to the surgery arrives.

The drugs and combinations used are shown in the slide in the order of frequency of administration.

Since 1925:

15,285 patients were given morphin and atropin.
 414 patients were given morphin and scopolamin.

196 patients were given barbital, sodium bromid, morphin, and atropin.
 172 patients were given barbital, sodium bromid, and pantopon.
 160 patients were given sodium amytal.
 68 patients were given barbital and pantopon.
 50 patients were given scopolamin and pantopon.
 36 patients were given pantopon only.
 35 patients were given luminal and morphin.
 20 patients were given barbital, sodium bromid, morphin, and scopolamin.
 17 patients were given pantopon and atropin.
 16 patients were given atropin only.
 38 patients were given other drugs or drug combinations.

The addition of sodium bromid to barbital by mouth as suggested by Doctor Emge has seemed to be a distinct advantage.¹¹

Beginning with January 1, 1931, we have been keeping a special postanesthetic record which, while time-consuming, is proving valuable.

COMMENT

We have found that by the method of premedication outlined, patients come to operation asleep or drowsy, that the course of anesthesia is better as shown by absence of stage of excitement, by better pulse, respiration and blood pressure, and by better postoperative condition with a definite decrease in nausea and vomiting.

In all honesty, however, we must admit that the general improvement in postoperative condition is not due entirely to proper premedication and improved methods of anesthesia. The increased gentleness in operative procedures which surgeons have developed is a vital factor.

CONCLUSION

There is definite need of individual attention in the matter of premedication. Accurate records and comparison of clinical results would be of value.

It is possible by the administration of properly selected drugs in correct dosage suited to the needs and the general condition of each patient to prevent preoperative psychic shock, to improve the course of anesthesia, and the postoperative condition of the patient.

In closing, I wish to express appreciation of the generous response to the questionnaire. Many of the comments are extremely valuable.

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THE LURE OF MEDICAL HISTORY

ESSAYS ON THE HISTORY OF EMBRYOLOGY*

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VI

THE controversy between the old evolutionists or preformationists and the epigenesists probably was not solely responsible for a long sterile period in embryology. Although the theory of epigenesis or evolution dated back to Aristotle and got support from the work on the incubating hen egg, of Harvey and Malpighi, the latter rejected it. It owes its final triumph to the brilliant work of Caspar Friedrich Wolff, who, according to Meyer-Steinegg and Sudhoff, was encouraged to reinvestigate the question of epigenesis by Haller. The publication of Wolff's "Theoria Generationis" as a thesis at the age of twenty-six years, in 1759 in Latin, and in 1764 in German, did not attract much attention, but a second publication of his entitled "Formatione Intestinorum," which appeared in 1768, finally discredited the preformation theory after it became known through its translation into German by Meckel in 1812. It justified the old Heraclitean doctrine, "All things are forever becoming, nothing ever is."

WOLFF AS FOUNDER OF THE GERM LAYER THEORY

By a very careful series of observations on incubating hen eggs, Wolff showed that the different organs are not present in the egg in miniature, but result from the growth, folding and fusion of a few strata which we now know as germ layers. Wolff traced and represented the development of the amnion, stomach, intestine, and the neural tube, and was the real founder of the germ layer theory. It was he who placed the theory of epigenesis on an unshakable foundation of direct observation and converted it into a law for many forms of beings at least.

Wolff stated that the different organs and organ systems are formed after each other, and declared that some organs which have a totally different function may, nevertheless, arise from the same germ layer, saying:

"It appears as though at different periods, and many times in succession, various systems might become formed after one and the same type, and as if they might be on that account similar to one another, even though they are in reality different. The system which is first produced, which is first to take on a specific form, is the nervous system. When this is concluded, then the fleshy mass, which really makes up the embryo, is formed after the same type; then appears a third, the vascular system, which certainly

... is not so unlike the first ones that the form described as common to all systems could not be easily recognised in it. After this follows the fourth, the intestinal canal, which, again, is formed after the same type, and appears as a completed independent whole, similar to the first three."

Wolff humbly and in a very exemplary way added that he was unable to see any of the causes which produce these changes, and that he therefore had nothing to say about them. Although his investigation of the development of the chick still is regarded as the most outstanding embryological investigation done up to that time, it attracted little attention at first, and the German edition of his observations, which was not published until forty-four years after the Latin edition, appeared some time after his death. As a result of Wolff's work, the theory of preformation was finally abandoned at the end of the eighteenth century except by a few, and has had only an historical interest since.

Wolff's earlier work, published as a thesis in his young manhood, has not yet received due recognition, for as stated by Gilis, he described globules in the homogeneous mass in which the embryo was formed, such as could be seen in young plants. This observation implied the discovery of the cell at least after the manner of Malpighi, and Wolff also saw blood islands and veins form in the same mass.

OTHER STUDENTS OF EMBRYOLOGY

Interest in embryology, as in other things, was not confined to any one country. John Hunter's "Anatomia uteri humani gravida" appeared in London in 1775, and Sömmering's "Incones embryon humani" in 1799. Oken's work "Ueber die Bildung des Darmkanals aus der Vesicula Umbilicalis" appeared in 1806, and it was not long thereafter before another epoch-making discovery was made by Heinrich von Pander, a young German of means and a pupil of Döllinger. Pander recognized the three germ layers in the developing chick, and published his monograph, with beautiful drawings by d'Alton, in 1817. According to Pander, "Whatever noteworthy may subsequently occur, it is never to be regarded as anything else than a metamorphosis of the blastoderm and its layers . . ." by folding.

Not long after Pander's publication, Purkinje discovered the germinative vesicle or nucleus of the hen egg in 1825. Since he found the germinative vesicle absent in eggs taken out of the oviduct, he concluded that it had been ruptured and that its "lymph generatrix" was mixed with the germs, thus explaining the term "germinative vesicle" and inaugurating the study of the maturation of the ovum which, however, was still unknown as a cell.

VON BAER, FATHER OF MODERN EMBRYOLOGY

Pander's publication was soon followed by that of another pupil of Döllinger, who is generally regarded as the father of modern embryology, Carl Ernst von Baer. He discovered the true mammalian ovum in 1827, displacing the Graafian follicle from its wrongful position, and clearing the way for an altogether better and different understanding regarding the sex cells. But we

* Author's note: I regret that my memory was truant in connection with a legend for the frontispiece from the Elzevir edition of Harvey, which appeared in the March issue of California and Western Medicine. My notes, accumulated in the course of years, contain a memorandum from Vierordt to the effect that the Elzevir edition, which appeared in Amsterdam in 1651, also was issued with a London title-page. This makes it seem as though two London editions had appeared in that year.

* This is the sixth paper of a series of essays on this subject. Previous papers were printed in this journal as follows: Part I, in December California and Western Medicine, page 447; Part II, in January number, page 40; Part III, in February number, page 105; Part IV, in March number, page 176; Part V, in April number, page 241.

must not forget that the cell was not known until 1833, and that the recognition of spermatozoa and ova as cells was not realized until long thereafter. The cellular nature of the ovum was established by Gegenbauer in 1861, and although Kölliker had shown in 1847 that spermatozoa arise from cells, the spermatozoön was not recognized as a cell till four years later, in 1865, when Hertwig declared it to be such.

The first part of von Baer's "Die Entwicklungsgeschichte der Thiere—Beobachtung und Reflexion," dedicated to Pander, was published in 1828, the second, in 1837, in incomplete form, and the concluding part in 1888, twelve years after his death. Von Baer's claim to fame rests not only on his discovery of the ovum. He carefully described the development of different organs from germ layers and showed that this form of development holds for many animals, thus raising this theory to the status of a law. Von Baer's observations were so accurate and complete, and his reflections so comprehensive and so sound, that they won general recognition. He also expressed the idea that embryos of the different species in the same group are more alike than the adult forms of these, and that the resemblances between related forms is greater the younger the embryos are, which is not always the case. He described four germ layers, failing to see that the middle layer or mesoderm includes two similar strata, the splanchno- and somatopleura. However, Pander's recognition of three layers was confirmed by Remak in 1845, and we speak of only three germ layers today—the ecto, endo, and mesoderm.

In the further development of the germ layer theory it was held that these layers are homologous throughout the animal kingdom, and that analogous organs in the adult must have arisen from the same layer. This idea stimulated an amazing amount of investigation in comparative embryology, and although the germ layer theory was found to apply in a very remarkable way to the ecto- and endoderm of most metazoa, there are exceptions even here, and the mesoderm which arises later than the other two layers does not have exactly the same origin in all forms.

The origin, identity, and the mechanics of the formation of the germ layers aroused a great deal of discussion. Much light was thrown on the problem by the study of the development of invertebrates and it was soon evident that these primary layers did not always arise in just the same way. Another interesting problem was the method of formation of the body cavity and upon this Balfour, Hertwig, Huxley, and Lankester threw much light by their studies upon invertebrates.

THE CELL THEORY

The fine advances made in morphology between the day of Wolff and von Baer could not well continue without the establishment of the cell theory and the development of technical procedures which enabled investigators to discriminate between cells of different kinds and trace their lineage and that of the differentiating organs which arose from them.

The discovery of the cell as the living structural unit of the plant and animal body in 1833 not only directed attention again to the nature of the sex cells, but raised anew the question of cell multiplication and division. Although Spallanzani, and especially Swammerdam had observed, and the latter also had represented, division of the fertilized frog egg, this process was first described more fully by two French investigators, Prevost and Dumas. However, the problem whether these cleavages represented cell formation remained unsettled for some time, for it was not easy to determine whether the germinal vesicle of Purkinje or the egg itself was the cell, and it may be recalled that von Baer compared the ovum with the vesicle of Purkinje. It is strange that Schwann, who had discovered the vegetable cell took no leading part in this matter, although this may have been due to his idea that cells were differentiated from a homogeneous layer or cytotblastema. However, the doctrine of Virchow, "omnis cellula e cellula," was finally established by Nageli in botany and by Kölliker, Reichert, Remak, and Leydig in zoölogy. Although leading botanists held that the nucleus disappeared and then was re-formed with each new cell division, anatomists, such as von Baer, Gegenbauer, Johannes Müller, and van Beneden, held the opposite view. This was finally established and "omnis nucleus e nucleo" became a law in cytology as well.

It would be a mistake to conclude that the discovery of the cell resolved all difficulties. The problem of the origin of the cell itself remained as before. It will be recalled that Schwann thought that a place existed where cells were formed out of unformed material and that Kölliker showed that this was not the case in cephalopods. Although Swammerdam and Spallanzani had seen and represented cleavage in the frog egg, it remained for Reichert and Bischoff to show that the "segmentation spheres," or blastomeres as we now call them, really are cells, and the former showed that the different organs arise from these cells. Later Bütschli, Fol, Hertwig and Strassburger and others, confirmed the observation of Auerbach that changes occur also in the nucleus. Hence it became clear that cells also have parentage in other cells, but this does not imply that the sex cells themselves were henceforth regarded as cells. Although Coste had seen the segmented ovum in the oviduct in 1848, the real nature of the sex cells was not established for some time. Nor was it easy to establish that the cicatrix of Fabricius or blastoderm, alone gave origin to the embryo. It is true that Pander had recognized two layers in the cicatrix, but it remained for Remak to establish that it was in fact the source of all the germ layers, and that none of them arose from the yolk.

THE THEORY OF RECAPITULATION

Although the idea that the early stages in the development of mammals are very similar was an old one, it could not be established without a long series of careful observations and a painstaking analysis on many forms. The existence of a certain amount of parallelism in the develop-

ment of all mammals studied and the fact that the higher animals seem to pass through stages similar to those in which some of the lower stop, was emphasized particularly by Meckel in 1812, and led to the formulation of the theory of recapitulation by Johannes Müller in 1863. The idea that the course of development of the higher forms repeats that of the lower had been suggested by von Baer and Agassiz, and greatly stimulated investigation in comparative anatomy and embryology. It resulted in the accumulation of an amazing number of observations, many of which were brought together by a young British genius, Balfour, in his comparative embryology published in 1880-1881. This undertaking was enlarged in the extensive treatise on comparative embryology by Hertwig, published in 1906, which contains a fine historical introduction and a general review of the literature in embryology.

Although the idea that ontogenesis exactly repeats phylogenesis had to be greatly modified later on, it was one of the most stimulating ideas, and also helped to explain variations commonly known as atavisms—the survival of structures possessed by an alleged remote ancestor, such as the milk line, the gill slits, the nucleus pulposus, a tail, a Darwinian tip, etc.

Attractive as the theory of recapitulation may seem, were it uniformly valid it would imply that our ancestors must have been bisexual, for the male possesses rudimentary female organs, such as nipples, and the female, rudimentary male organs, such as the clitoris. However, the ductus Botalli, the gill slits, the milk ridge, the yolk sac, etc., in man and such structures as the embryonic teeth in whalebone whales, seem to be examples of recapitulation, for the presence of these things in embryonic stages of higher forms is difficult to explain except upon the assumption that they represent vestiges of organs that were present in some ancestral form.

WORK OF HIS, BORN, SCHULTZE, AND SPALTEHOLZ WAS OF IMPORTANCE

Although development of the outer form of embryos could be followed easily by inspection, or by a record made by hand or by photography or by anthropometry, the development of the internal organs and their relationships was too intricate a matter to be followed satisfactorily in this way. Hence relatively little progress was made with these difficult problems in morphology until a sufficient advance had been made in the technique of preservation, embedding, sectioning, and mounting serial sections. These things alone made it possible to unravel the inner architecture of embryos, and the ingenious method of cutting specimens by the microtome devised by His and of reconstruction devised by Born were most important advances, for they enabled anyone to reproduce both the external form and the internal structure of entire embryos or of any part thereof with great accuracy. Later photographic methods of reconstruction and the invention of the Schultze and Spalteholz methods of clearing embryos and fetuses placed further very useful means in the hands of embryologists. Without these technical advances recent rapid progress in morphologic embryology would have been im-

possible. Although we have been unable to gain much insight into the causes of development, we now know a great deal about how things happen in a large number of forms. The chief obstacle at present often lies in the expense or difficulty, or both, of obtaining the necessary early stages, and this remains true especially regarding man himself.

The later and more recent contributions to embryology have been many indeed, and have given us a fairly detailed knowledge of the story of development of most of the organs in a number of different forms. The comprehensive treatise on the embryology of the vertebrates by Hertwig, and that of Korschelt and Heider, in two languages, on invertebrates, furnishes a fair idea of the status of that subject at the time of its publication, and the "Manual of Human Anatomy" by Keibel and Mall furnishes similar information regarding the status of human embryology at that time. Since these works were published, much progress has been made, although the attention of most anatomists has of late been devoted to other things than morphologic embryology. Although the earliest stages in human development remain unknown to us, clinicians are now alive to the situation and are coöperating with anatomists in such a way as to suggest that these stages will probably be known before many years, and no one doubts that they will closely parallel similar stages in the higher mammals.

A considerable number of young human embryos are known by letters or names, and really are famous in embryology. We speak of the Coste, Reichert, Graf Spee, Peters, Bryce-Teacher, Leopold, Thompson, Eternod, Miller, Mall, and Mateer embryos, for example, because the individuals named obtained or described them carefully.

One of the important questions connected with all these embryos was that of their age, and practically all of them were at first believed to be younger than they actually were. This is due to the fact that the exact times of ovulation and fertilization are unknown. We do not yet know how long a time supervenes between ovulation and fertilization and between the latter and implantation or conception. Although the true age of an embryo begins with the zygote, it has been customary to think of it as beginning with implantation. We have data regarding these matters in a number of laboratory animals, but they remain undetermined regarding man. Because of this lack, an attempt was made to extend the curve of prenatal growth in man downward to the beginning, but this could only be serviceable if the rate of growth during prenatal life were constant, which is not the case.

It is extremely regrettable that it is so difficult and so expensive to obtain embryological material from man's nearest congeners, the chimpanzee, gorilla, and the orang-ou-tang; or to use these animals for experimental purposes in embryology. However, now that it has been found that the chimpanzee can prosper in a northerly climate, it is possible that it will contribute much in the near future toward the solution of problems in human embryology.

Stanford University.

CLINICAL NOTES AND CASE REPORTS

AN APPARATUS FOR APPLICATION OF HEAT IN THE TREATMENT OF GONORRHEA IN THE FEMALE

By H. M. KANNER, M. D.
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IN the past few years the prolonged application of heat has become one of the most important features in treating gonorrhea. A number of complicated devices (1, 2, 3) are being used for this purpose.

The accompanying illustrations show a very simple and inexpensive method of applying prolonged heat, with the added advantage of drainage. There are two pieces of apparatus—one for the office, and the other for home use.

In the office treatment the patient is placed on the table in the lithotomy position and on a level with the lavatory (Fig. 1). The irrigator is inserted into the vagina and is held firmly against the vulva by the patient, so that there is very little spill. The cold water is then turned on gently until a very small stream comes from the outlet. The hot water is turned on slowly, gradually increasing the temperature until it is as hot as the patient can stand. The rise in temperature is noted on the thermometer in the flask and is the guide for adjusting the flow so that the temperature can be kept at a fixed point. The patient soon learns to tolerate a temperature of from 118 to 120 degrees Fahrenheit over a period of twenty-five to thirty minutes. By this method heat is applied directly to the cervix and vagina with constant irrigation.

When the patient has become accustomed to the office treatment she is instructed in the use of the simplified apparatus for home treatment, as shown in Figure 2. She is instructed to lie in the bathtub with the thighs against the abdomen and the heels on rail of tub, with the hips elevated. This balloons out the vagina by putting it in a per-

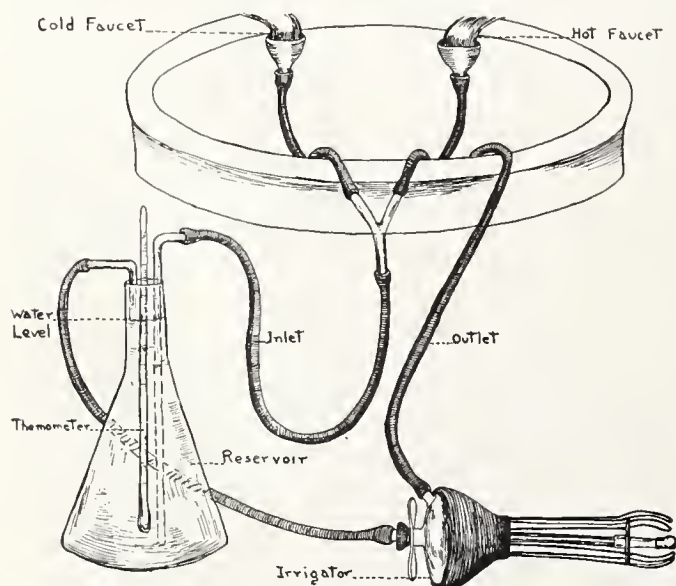


Fig. 1.—Apparatus for office treatment.

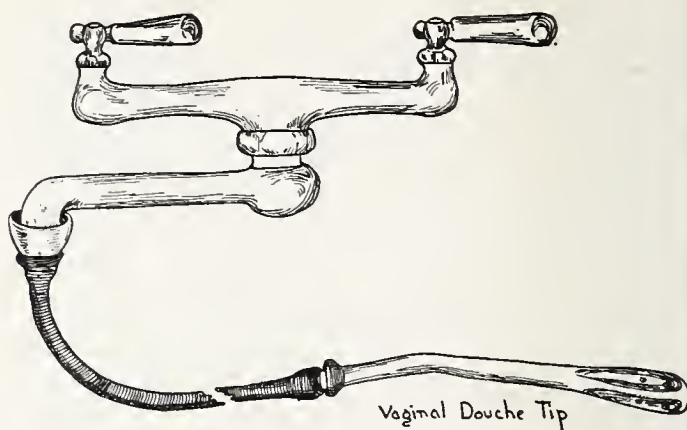


Fig. 2.—Simplified apparatus for home treatment.

pendicular position and allowing air to enter. The tip is inserted into the posterior cul-de-sac. The patient, having experience in the office, is instructed to begin the home treatment with a small stream of cold water, just enough to cause an overflow from the vagina, then to increase the temperature gradually with the hot water, thus having a continuous irrigation without force and applying direct heat to all parts of the vagina. These treatments are taken at home for fifteen minutes twice a day, or as indicated.

Due to the direct connection, with no mixing chamber or thermometer for a guide, the patient is warned of the possible danger of a too sudden rise in temperature and is cautioned to be careful and increase the temperature very gradually.

This type of treatment supersedes (1) the use of tampons which are obnoxious and interfere with drainage, (2) the one or two-quart douches which do not provide enough heat or drainage, and (3) the old Sitz baths, which are weakening and depressing. In comparison, the patients favor the prolonged irrigations with heat.

COMMENT

The ideal treatment of gonorrhea today is based upon:

1. The application of heat, with drainage.
2. Elimination of foci of infection in the cervix and in Skene's and Bartholin's glands by either cauterization with actual cautery or endothermy or removal by surgery.
3. Prevention of reinfection.

Medico-Dental Building.

RELAPSING FEVER

REPORT OF CASE

By ARTHUR E. VARDEN, M. D.
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MEADER¹ in 1915 reported the first cases of true relapsing fever arising from a focus in this country. Two years later Waring² reported a case in a twelve-year-old boy from the same focus at Bear Creek, Colorado. Briggs³ in 1921 reported the first proven cases occurring in California, although there had been an epidemic among the Chinese population of Oroville in 1874. These cases are somewhat doubtful, however.

since an absolute diagnosis was impossible at that time. Weller and Graham⁴ in 1930 definitely proved the transmitting vector to be a tick in their patients from Texas. So far they are the only ones to prove the transmitting agent in the cases occurring endemically in this country.

Since Waring's patient is the youngest recorded in the literature, a case occurring in a young child, arising from a focus in Southern California, seems important enough to warrant reporting.

REPORT OF CASE

J. B., male, five and one-half years old. The family history is significant in that the father has arrested pulmonary tuberculosis, which has been active during the life of the patient although due precautions were taken. The father also has hay fever.

For six months, during the winter, the family lives in Tucson, Arizona. The other half of the year is spent in Big Bear Valley, California. With the exception of an occasional "upset stomach," associated with fever as high as 102 degrees, lasting for a day, the past history is irrelevant.

Shortly after the patient's arrival in Big Bear Valley this summer, he experienced one of these attacks of "upset stomach." The boy recovered in the usual length of time and remained well until about ten days later, when he did not act or feel quite as well as usual. Three days later he complained of pain in his left elbow joint. (He had complained of a similar pain in his ankles some months before.) The following day, June 6, his temperature was taken and found to be 102 degrees (M). He vomited once and seemed quite ill although his mother thought it was another attack of "upset stomach." At four o'clock the same afternoon, he had a generalized convulsion, temperature 103 degrees (A), and he vomited again. Following this he fell asleep. His only complaints were headache and malaise.

I was called by Dr. J. A. Wallace of Big Bear Valley, and saw the patient for the first time at nine o'clock that night. Shortly after I arrived he had a generalized, epileptiform convulsion, lasting several minutes. Temperature was 105.6 degrees (R). He had taken but little fluid, and had voided last at three o'clock on that afternoon.

Physical examination at that time revealed an extremely toxic, irrational, slightly thin boy with flushed face, dry, parched lips, obviously acutely ill. Skin was moderately dehydrated. Nose showed allergic rhinitis with some secondary infection, but not enough to account for the temperature. Mouth was dry and coated with many white pin-head sized elevations scattered throughout. The tongue had a thick gray coat. Tonsils were small and not infected. Reflexes, hyperactive and equal. Eye grounds were negative.

Lumbar puncture was done and the fluid found to be clear and under normal pressure. Three lymphocytes were found on microscopic examination. Pandy test negative.

During the night the child was very restless and at times irrational. Temperature gradually came down to 103 degrees, where it remained. Despite adequate fluid intake, the boy voided but once during the night, involuntarily, although he had frequent desire, urgency, and made several unsuccessful attempts.

Early the next morning he was taken to the Redlands Community Hospital. On the way down he had two "fainting spells."

On admittance to the hospital he still appeared somewhat toxic, but was rational and in general seemed improved. Shortly after his arrival he voluntarily voided a small amount of urine. Physical examination was the same, except for moderate abdominal distention; and the bladder was found to reach a point almost as high as the umbilicus. Blood pressure was 98/65. A nose and throat consultation confirmed the above findings in these structures.

The patient was catheterized and 150 cubic centimeters of urine were removed, bringing the bladder

to a point just above the symphysis. The urine was negative except for 3-4 w. b. c./h. d. f. (8-10 w. b. c./h. d. f. uncatheterized). After a urologic consultation, it was decided to drain the bladder flat, but before this could be done the patient started voiding; and following a hypodermoclysis of 400 cubic centimeters normal saline and 300 cubic centimeters of 10 per cent glucose intravenously, he had diuresis. At three o'clock that afternoon his temperature became normal and he seemed greatly improved except for the abdominal distention, which was not relieved until that evening, despite stipes and a rectal tube.

The laboratory work completed was as follows: Blood: Red blood cells, 5,280,000; white blood cells, 16,850. Differential: Polymorphonuclears, 91 per cent; small lymphocytes, 2.5 per cent; large lymphocytes, 4.5 per cent; transitionals, 2 per cent; myeloblasts, 1 per cent. No parasites seen. Blood taken while temperature was coming down—at 102 degrees. X-ray of chest was negative. N. P. N., 39 mg. per cent.

Except for looking somewhat pale and weak, he seemed well and remained afebrile until early in the morning of June 8, when the temperature went to 105 degrees, falling sharply to normal at 11 a. m. Except for headache he had no complaints. The only change noted was a greatly decreased toxicity, as compared to the first attack, and a barely palpable spleen.

Malaria was considered, although the chance of infection was slight. Blood taken with the temperature coming down (102 degrees R): White blood cells, 4,600; polymorphonuclears, 54 per cent; small lymphocytes, 30 per cent; large lymphocytes, 10 per cent; transitionals, 4.5 per cent; myeloblasts, 0.5 per cent; eosinophils, 1 per cent. Negative for parasites.

The patient again seemed over his infection and remained well until five days later, when on June 15 he started a more gradual rise in temperature. Smears were taken while the temperature was going up, and no parasites or spirochetes were seen. White blood cells in the five-day period had remained between 4,300 and 5,400, with the polynuclears and lymphocytes about equal. Smears negative except for basophilic stippling of the red cells. The eosinophils increased to 4.5 per cent. Temperature reached a peak of 104.5 degrees. The white count increased to 8,850, with 67 per cent polymorphonuclears. The hemoglobin was found to be 71 per cent (N) where formerly it had been 80 per cent. The basophilic stippling showed a definite increase. The spleen, which had remained the same size, increased in size with this attack so that it could be felt one finger below the costal margin. The edge was round and soft.

Additional laboratory work was done as follows: Serum agglutination negative for *Bacillus melitensis*, *Bacillus abortus*, typhoid, and paratyphoids A and B. Cultures were made from the urine, stool, and blood, but were all negative. Urine negative except for an occasional trace of albumen and an occasional w. b. c. The stool was negative. Tuberculin 0.1 milligram intradermally, human and bovine, were both negative.

Because of the patient's well-being between attacks, the gradual decrease in severity of the symptoms with each subsequent attack, and finding the disease occurred in Southern California, we were led to consider relapsing fever, in spite of the fact that no spirochetes had been found in smears taken with the temperature going up. The following day, June 16, while the patient was afebrile, one spirochete was found in a routine smear. I was unable to demonstrate it to Dr. A. H. Zeiler for confirmation, however.

Subsequently the blood picture became normal except for a slight anemia. The boy's general condition improved more than it had between previous attacks, and his spleen became barely palpable, so that it appeared as if the disease had run its course.

Four days later, however, on June 19, his temperature started going up late in the afternoon and reached a peak of 104.2 degrees at midnight. He again complained of headache, and his spleen enlarged to where it could be felt two fingers below the costal margin. Spirochetes of relapsing fever, *Borrelia recurrentis*, presumably the North American type *B. noyzi*, were found in both fresh and fixed smears taken while the

temperature was going up. All of the previous smears have been carefully restudied and no spirochetes could be found.

The following morning, as the temperature was coming down, 0.15 gram of neoarsphenamin was given intravenously. Twenty-four hours later he had a mild reaction, with fever of 102.8 degrees and headache. The spleen remained unchanged, and no spirochetes were found.

We planned to repeat the drug in four days, and at the appointed time, June 24, his temperature started going up, which gave the exact opportunity we wanted for treatment. He complained of headache, his spleen which had decreased in size became larger, and, interestingly enough, a spirochete was found by accident in a routine smear. The same dose of neoarsphenamin was given and repeated three days later. The course was uneventful following the second injection, and the spleen could not be felt two days later, June 26.

COMMENT

Briefly the interesting points in this case are as follows: leukopenia (with the exception of two of the counts given above, other counts too numerous to include) where textbooks give leukocytosis. Absence of muscle pain, usually an outstanding symptom of the disease. The absence of spirochetes during the febrile stage and the presence of them on smear during an afebrile period, which is relatively common in children.⁵ The attacks were much shorter, twelve hours and less (except in the first one) than the usual two to seven days' duration. Finally the toxic symptoms, abdominal distention and the suppression of urine, two of the most severe toxic symptoms⁶ of the disease.

I am indebted to Dr. A. H. Zeiler of Los Angeles for confirmation of the diagnosis and advice in treatment.

Medico-Dental Building.

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THERAPEUTIC FEVER IN THE TREATMENT OF CHOREA

REPORT OF CASE

By J. M. FRAWLEY, M. D.,
MILTON PEPPER, M. D.,

AND

L. E. WATKE, M. D.
Fresno

CHOREA may be grouped with certain other childhood diseases, as a rheumatic infection. In this group, Smith and Sutton¹ include acute rheumatic polyarthritides, chorea, carditis, recurrent sore throat or tonsillitis, subcutaneous nodules, growing pains, and certain skin lesions. These are called rheumatic infections because they exhibit a tendency for the heart to become involved sooner or later.

The child with chorea presents a well known picture. There are constant purposeless movements of the extremities. The face is often expressionless. The child grimaces and has difficulty in speech. Voluntary movements are impossible.

The pathology of chorea is not definitely known. In those few cases examined at autopsy, hyperemia—with thromboses in the engorged vessels—has been observed. There are round celled infiltrations about the smaller vessels. These changes are of similar nature to the vascular changes in acute rheumatic fever.

The traditional treatment of chorea by rest and sedatives has not been satisfactory. Lately there has been renewed interest in the treatment of this disease, since it was found by Lucy Porter Sutton that it responded to artificially produced fever.

We have recently had occasion to use this form of therapy in a patient seen at the Fresno General Hospital.

REPORT OF CASE

The patient was an Armenian girl of nine years of age. One month previous to admission she had gone to bed with an attack of acute rheumatic polyarthritides. Within two weeks she began to be irritable and fidgety. This had gradually become more noticeable until on admission she presented well developed choreiform movements.

The early history was unimportant, and the child had been in good health up to the onset of the acute rheumatic fever.

The patient was a well developed girl of nine years, weighing sixty pounds. The temperature was normal, and the pulse rate was 120. There was a soft systolic murmur at the apex transmitted toward the left axilla. The tonsils were slightly enlarged.

She was given warm baths, moderate doses of luminal and bromids, but without any improvement in her condition. In spite of her cardiac lesion it was decided to try fever therapy.

On July 6 one minim (0.06 cubic centimeter) of Cutter's typhoid vaccine (500 million killed bacteria to each cubic centimeter) was given intravenously. The temperature rose from 98 degrees Fahrenheit (36.6 centigrade) to 102 Fahrenheit (38.8 centigrade) in five hours.

On July 7 two minims (0.12 cubic centimeter) of vaccine were injected. The temperature rose in five hours from 99.4 degrees Fahrenheit (37.5 centigrade) to 107 Fahrenheit (41.6 centigrade). An ice cap was applied to the head and a cool sponge bath was given. Next morning the temperature was normal.

On July 8 one and one-half minims (0.09 cubic centimeter) were given, which was followed by a rise of temperature from 98.6 degrees Fahrenheit (37.0 centigrade) to 104 Fahrenheit (40.0 centigrade) in five hours. There was considerable improvement in the child's appearance by this time. The purposeless movements had decreased, but were not entirely abolished.

On July 17 two and one-half minims (0.15 cubic centimeter) vaccine were given. This was followed by a rise of temperature to 101 degrees Fahrenheit (38.3 centigrade).

On July 24 the last injection of three minims (0.18 cubic centimeter) were given, which was followed by a rise of temperature to only 99 degrees Fahrenheit (37.2 centigrade).

The choreiform movements had ceased and there was no more irritability.

Improvement in the general physical and mental condition of the patient has continued to date, with no return of symptoms. Since leaving the hospital she has gained one and one-half pounds in three weeks. The pulse has dropped to ninety.

COMMENT

Therapeutic fever was popularized by Wagner Jauregg, who, in 1918, introduced the malaria treatment of dementia paralytica.

Since then much attention has been given to the treatment by this means, of diseases of the central nervous system including not only dementia paralytica, but also Parkinsonian encephalitis, dementia praecox, melancholia, neuralgia, epilepsy, etc.

The plasmodium of malaria, which was used at first as the fever-producing agent, caused anemia, and many other agents were, therefore, tried by various workers. *Treponema hispanicum*, the etiological factor in relapsing fever, was used in 1920; the organism of Sodoku, or rat bite fever, in 1926; and antityphoid vaccine in 1927.

Because of the striking similarity between the choreiform movements which follow certain cases of encephalitis and the movements of chorea, and because of the fact that chorea had sometimes been cured by intercurrent illness with fever, Mas de Ayala² in 1930 applied to chorea the same treatment which he had been using in encephalitis. He produced fever by means of the *Treponema hispanicum* and found that the symptoms of chorea were abolished.

Typhoid paratyphoid vaccine has been successfully used in the treatment of chorea since March, 1929, by Lucy Porter Sutton.³ She noticed that luminal, given as a sedative in this disease, caused a fever and rash when the drug was pushed. Following the fever the symptoms disappeared. The improvement seemed to be due to the fever rather than to the specific effect of the drug. Accordingly typhoid-paratyphoid vaccine was used in place of luminal to produce the fever.

Pilcher and Gerstenberger⁴ observed results comparable to those obtained with luminal when nirvanol (phenyl-ethyl-hydantoin), an hypnotic and sedative, was given in sufficiently large doses to produce fever and exanthem.

It is interesting to note in connection with the use of typhoid vaccine in the treatment of chorea that twenty-five years ago a Rumanian physician, Mor Turnovszky,⁵ reported a case of chorea which was cured by an intercurrent attack of typhoid. No advantage was taken of this remarkable result, and it was not until Professor Wagner Jauregg introduced malarial therapy that any attention was paid to this early case.

Therapeutic fever acts on the nervous system by means of the meningeal reaction which it causes. In a series of cases examined by Mas de Ayala,⁶ patients who before the production of fever had a normal spinal fluid developed an increase in the cell count and an increase in the globulin content of the cerebrospinal fluid. The reaction produced, he considers to be a latent benign and transient meningitis.

Résumé.—Five injections of typhoid vaccine, varying from one to three minims (0.06 to 0.18 cubic centimeter), were given intravenously to a child suffering from chorea. There was a rise of

temperature to a maximum on one occasion of 107 degrees Fahrenheit (41.6 centigrade). The symptoms of chorea disappeared completely.

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Treatment by Fever of Chorea.—Twenty-four children suffering from St. Vitus' dance were treated successfully by fevers artificially produced by manufactured serum by Dr. Lucy Porter Sutton, New York, working in Bellevue Hospital, according to a report recently made to the American Medical Association. The average time the children remained in the hospital was nine days, while sixty-three cases under the usual treatment of rest and quiet stayed in other hospitals an average of forty-seven days. Doctor Sutton used typhoid-paratyphoid serum because it gave fevers for successive days and reported the prompt stopping of the symptoms of St. Vitus' dance.

The discovery was by accident and occurred while Doctor Sutton was treating an extreme case of St. Vitus' dance in a boy. He was given a drug as a sedative with no beneficial effect, but through a misunderstanding the drug was not stopped until the thirteenth day when a rash and a fever developed. This was traced to poisoning from the drug, but it was noted that the St. Vitus' dance suddenly improved after the irregular fever that rose as high as 106.4 degrees. A consideration of various factors convinced Doctor Sutton that it was the fever that cured. She then tried small doses of typhoid serum because it was a safe and simple way of giving fever and found it effective. Later, typhoid-paratyphoid serum was chosen because it was an even simpler, safer, and cheaper way of giving fever.

The twenty-four experimental cases were treated by fever more rapidly and more satisfactorily than any other cases of St. Vitus' dance which had heretofore been treated in Bellevue Hospital, but Doctor Sutton still considers the treatment in an experimental stage.—*Journal of the Missouri Medical Association*, October, 1931.

Evidences in Favor of Inheritance in Cancer.—The peculiar occurrence of tumors in homologous twins assists in confirming the suspicion that tumors in them are derived from the germ plasm, probably from their ancestors, and if the simultaneous symmetrical tumors in homologous twins are so brought about, is there not a strong possibility that other human tumors may be similarly brought about and inherited from the ancestors, as in mice? Is that not thoroughly consistent with the fact that there are cancer families? When we come to know as much about cancer and other tumors in human beings as we know about cancers and other tumors in rats and mice, may we not expect to find the whole thing taking place according to exactly the same fixed laws?—Joseph McFarland, M. D., *Delaware State Medical Journal*, March, 1932.

BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussion invited.

ACUTE URETHRITIS: ITS PROPHYLACTIC AND ABORTIVE TREATMENT

EDWARD W. BEACH, M. D. (Medico-Dental Building, Sacramento).—So soon as this subject is broached, the agile mind glimpses infractions of the Decalogue and that Minotaur of youth—gonorrhea. To be sure, gonorrhea is the most frequent offender in acute urethritis and while, like Tennyson's brook, it seems to come from shady spots or "haunts of coot and hern" to "make a sudden sally" and often to "go on forever," it is by no means the sole culprit.

Any consideration of the etiology of acute urethritis must of necessity deal with the rarer but nevertheless important nongonorrheal group. The latter, like the strokes of Colonel Seller's clock when she "buckled down to her work," are both numerous and impressive.

The following classification outline, while not comprehensive, helps to simplify the subject although with some overlapping of divisions.

NONGONORRHEAL URETHRITIS

- | External Factors | Internal Factors |
|---|----------------------------------|
| 1. Venereal Origin. | 1. Secondary Urethral Infection. |
| (a) Demonstrable Organisms. | By direct extension. |
| Bockhart's organism in pseudogonorrhea. | Blood or lymphatics. |
| Staphylococcus (various). | 2. Eruptive Fevers. |
| Streptococcus. | Variola. |
| Micrococcus catarrhalis. | Varicella. |
| Pneumococcus. | La grippe. |
| Pneumobacillus of Friedländer. | Typhoid fever. |
| Bacillus coli communis. | Acute rheumatic fever. |
| Spirocheta pallida. | 3. Ingestive Group. |
| Fungi. | Alkali. |
| Bacillus Ducrey (rarely). | Alcohol. |
| (b) No Demonstrable Organisms. | Asparagus. |
| "Aseptic" urethritis. | Turpentine. |
| Chemical irritation? | Cantharides. |
| 2. Traumatic Origin. | 4. Diathetic Group. |
| Mechanical. | Gout. |
| Chemical. | Rheumatoid. |
| Physical. | Diabetes. |
| Physiological (masturbation). | |

Nonspecific urethritis usually results from direct contact, incident to the sexual embrace and is most often promulgated about the menstrual epoch. Every sort of organism has been found in the bacterial type, with honorable mention of the staphylococcus, whose attack upon the obdurate cylindrical epithelium is doubtless enhanced by lowered local resistance or constitutional depletion from any cause. Vaginal smears from the copartner are usually disappointing. Frequently this type of urethritis is as adamant to all treatment. Fortunately, the "aseptic" urethritis signaled by a discharge minus discernible organisms but with large numbers of leukocytes and desquamated epithelial cells is usually more amenable

to therapy. Dreyer has recently stressed reflex urethritis due to pediculus pubis infestation. The possibility of an intra-urethral chancre must be remembered.

A traumatic urethritis from mechanical bruising may reward the zealous and overanxious owner in his tireless search for the illusive drop. Ardent devotion to the "penis developer" by the moron, the pervert and the benighted may sponsor a urethritis. The valiant but misdirected use of powerful chemical injections either as a prophylactic or abortifacient may initiate an intractable inflammation. Foreign bodies introduced in satyriasis to heighten pleasure, excessive masturbatory, abnormal coitus, immoderate onanism or sexual overindulgence by the debauchée, may all culminate in urethritis. Accidental injury to the urethra, an indwelling catheter, the passage of an overly warm sound, the maladroit use of diathermy in the urethra or adjacent rectum may all cause urethritis. A retained calculus, a neoplasm, and most infrequently actinomycosis can be responsible for urethritis. A bizarre factor is the infestation of the urethral canal by minute catfish, as among the natives of the Amazon, and described by Gudger.

Among the internal factors a descending infection from other points is most common. This often is secondary to a diseased process in the kidney, bladder, prostate, or seminal vesicles. Remote foci, such as teeth, tonsils, accessory sinuses, gall-bladder, appendix, colon or pelvic morbidity, may contribute to the latter. Both hematogenous and lymphogenous routes are postulated.

Urethritis is sometimes seen accompanying the acute exanthemata and in severe constitutional infections. The exact cause is equivocal, whether because of the toxins, the myriads of assailing organisms in the urine, or by reason of the profound asthenia of the patient.

Any decided change in the chemistry of the urine may sponsor urethritis. Prolonged ingestion of alkaline water, intemperate use of alcohol, asparagus, turpentine, cantharides, may all spell trouble.

Attacks of urethritis attending gout, the rheumatoid diathesis and diabetes are sometimes seen.

Gonorrhea captions all other etiologic factors in acute urethritis. Paurge's choice of *Rondibilis*' fifth recommendation to assuage lust is still popular in many quarters, and hence the gonococcus merits some consideration. Neisser's organism, a Gram-negative intracellular diplococcus is now held responsible for gonorrhea by most bacteriologists. However, some men, after C. C. Warden and I. S. Koll, still champion an altered coffee-bean-shaped staphylococcus in symbiosis with the

gonococcus. Many workers (Pelouze to the contrary) find the gonococcus difficult to culture except under ideal conditions, thereby offering refutation to the staphylococcus theory. Nevertheless, secondary invaders readily thrive in the soil prepared by the gonococcus. A specific urethral smear, best prepared with a rounded toothpick, devoid of cotton, presents many leukocytes without bacteria, a few bacteria between cells and an occasional phagocyte packed with diplococci in an evenly dotted arrangement.

Obstacles incident to diagnosis are often more apparent than real. A careful history and a painstaking examination is important. A lengthy incubation period suggests nonspecific possibilities or an intraurethral chancre. Identification of the causative organism is essential either by urethral smear, culture or recovery from the urine. At times a complete urologic check-up is imperative, especially with descending infections. Each patient is an individual problem, with treatment always dependent upon accurate diagnosis.

* * *

FRANKLIN FARMAN, M. D. (727 West Seventh Street, Los Angeles).—A consideration of the pathology of acute urethritis in the male involves a discussion, first, of the changes which occur in the urethra throughout its entire length; second, of the complications such infections frequently bring about in contiguous genital structures; and lastly, of the general body or remote reactions of gonorrheal infection.

At the onset of acute urethritis following bacterial (gonococcus) invasion, the anterior urethra undergoes a gradual inflammatory reaction. For the first thirty-six hours the germs remain on the surface, and this period, which is free from symptoms, is termed the incubation period. According to Luys, it is a matter of common knowledge that the gonococcus penetrates into a normal urethra which has never been infected, and has a healthy cylindrical epithelium, much more easily and readily than into one which has been infected some time or other. This fact explains why abortive treatment by means of immediate irrigation and prophylactic injections are much more often a failure in fresh cases than in subsequent attacks. One of the consequences of gonorrheal infection of the urethra is destruction of the cylindrical epithelium and its replacement by pavement (squamous) epithelium. After a couple of attacks, the urethra has undergone such modifications as to become a bad soil for the gonococcus. The organism finds it difficult to penetrate into the epithelium, and thus the chances of a well-conducted abortive treatment proving successful are infinitely greater (Thomson).

Following the incubation period the gonococci commence to multiply rapidly, penetrate into the deeper tissues and into the secreting follicles of Littre and crypts of Morgagni. A severe inflammatory reaction is brought about through the liberation of bacterial (gonococcal) toxin; serum is poured out, large numbers of polynuclear neutrophil leukocytes (pus cells) migrate into the

inflamed area, epithelial cells are loosened and desquamated, and all of these products accumulate in the lumen of the urethra to form the characteristic thick, yellow pus of a gonorrheal discharge. During this period the superficial layers of the submucosal tissues become markedly infiltrated with polynuclear and mononuclear leukocytes and with plasma cells.

If microscopic sections are prepared from a urethra at this stage of the disease it will be noted that wherever gonococci are found, there also large numbers of polynuclear leukocytes are present. Generally, however, in the deeper tissues the gonococci are more commonly extracellular than intracellular, which is the opposite to what one finds on the surface and in the lumen of the urethra. Moreover, the gonococci do not enter into the epithelial cells, but penetrate and multiply between them.

The gonococcus does, however, gain access to the excretory ducts of Littre's follicles and the other urethral glands, and thereby the same inflammatory processes are produced in these diverticula as on the surface of the urethra itself. Unfortunately, antiseptic irrigations and injections seldom or never penetrate into the infected follicles, within which the gonococcus may remain for an extraordinarily long period of time. When these glands or follicles become infected with the gonococcus, other organisms follow in their trail. These secondary organisms consist of staphylococci, pneumococci, diphtheroids, streptococci, *Bacillus coli* and the like, and it is these organisms which may keep up a mild, chronic inflammation, resulting in a morning drop and shreds in the urine.

When the inflammation has passed its maximum intensity, an attempt is made by the tissues to repair the damage which has been done. Marked proliferation of embryonic cells occurs, and in place of the original single layer of surface cylindrical epithelium, there is developed a coating which consists of several tiers of cells and in which the cylindrical variety reverts to a more cubical or even squamous type. Even keratinization may take place in the surface epithelium in very chronic gonorrhea.

If the attack of gonorrhea has been mild or of short duration, the whole of the injured surface may be rapidly repaired, but in many cases the inflammation spreads still further to the subepithelial connective tissue and even to the trabeculae of the corpora cavernosa. These, in consequence, are swollen and infiltrated with embryonic cells, serous exudate, and leukocytes. Phlebitis may supervene as a result, as well as endo and periarteritis. The lymphatics may also be involved, accompanied by painful enlargement of the lymphatic glands, which may even suppurate (Thomson).

Nature's method of obliterating the last traces of urethritis is by the formation of small, fibrous, contracting nodules within the surface and glandular epithelium. Unfortunately, however, this healing process may lead to stricture formation by gradual shrinkage of the lumen of the urethra.

In by far the majority of cases, variously estimated from 70 to 95 per cent, the infection (bacterial invasion spreads from the anterior to the posterior urethra by direct continuity or surface transmission (Pelouze). When a posterior urethritis is set up, it is always accompanied by some congestion or true inflammation of the prostate gland. Other complications that should be mentioned are cowperitis, vesiculitis, and epididymitis. These genital structures when attacked by the gonococcus undergo the same process of congestion, infiltration, proliferation, and fibrosis.

More remotely removed from the seat of primary infection, but of paramount consequence to a full appreciation of the ravages of gonorrhea, are the secondary complications of pyelonephritis, arthritis, and ophthalmia.

* * *

CHARLES P. MATHÉ, M. D. (450 Sutter Street, San Francisco).—The most efficient measure in the prophylactic treatment of acute urethritis is its prevention. This can be accomplished by proper education of the public as to the ravages of Neisserian infection, calling attention to the many deformities and mutilating complications resulting from this disease. The most effective prophylactic treatment is the immediate employment of an antiseptic injection or lavage of the urethra immediately after exposure or early during the incubation period of the disease. This consists of an irrigation of the anterior urethra employing low hydrostatic pressure with potassium permanganate (1 to 4000) or neutral acriflavin (1 to 4000). The irrigation should be performed with gentleness and is followed by an instillation or injection of a few cubic centimeters of neosilvol (6 to 10 per cent), argyrol (5 to 15 per cent), protargol (one-fourth to one-half per cent), or reargon (five per cent), etc. The patient is instructed to compress the bulbous urethra with the hand in order to confine the antiseptic solution to the anterior urethra. The sooner after exposure that prophylactic treatment is carried out the greater likelihood there is of preventing infection. This phenomenon has been observed by many urologists, and I have yet to see a case in which I personally instituted prophylactic treatment early—within twenty-four hours after exposure—who later developed urethritis. I recall a conversation with Doctor Dalger, ship surgeon of the French naval training ship, *L'Edgar Quinet*, which came to San Francisco in 1929 and in which the number of Neisserian infections among thirteen hundred men aboard over the period of one year's cruise had been reduced to twenty-eight by proper education of the crew and the efficient use of prophylactic measures. Lieutenant Commander Paul Stalneckel of the United States Navy also commended on the low incidence of infection among sailors in which prophylactic treatment was properly carried out. Acute urethritis is usually ushered in with discharge and itching of the meatus, and dysuria, and as soon as any of these signs or symptoms occur abortive treatment should be instituted.

Efforts to abort urethritis have not been sufficiently employed because of the erroneous general opinion that they do little good, if any, in staving off infection. Although not always successful, a number of failures are unquestionably due to improper or poor technique. A number of men, notably Israel in Germany, Tissot in France, and Wright in this country, report several cases in which they have unquestionably aborted acute urethritis. Abortive treatment consists of the injection of an antiseptic solution in the anterior urethra during the first twelve to seventy-two hours of the disease when the urethritis is usually confined to the pavement epithelium of the fossa navicularis. A silver salt, reargon (5 per cent), neosilvol (6 to 10 per cent), argyrol (5 to 15 per cent), or protargol (one-fourth to one-half of 1 per cent), etc., is used rather than other germicidal substances because they stimulate chemotaxis and phagocytosis, as well as to exert a bacteriacidal effect on the organisms themselves. The principle in mind is that one should aim to kill the organisms present with the least destruction to urethral tissue consisting of the superficial epithelium of the lumen. Many cases are not aborted because of improper filling of the fossa navicularis resulting from a too casual technique of the injection as usually performed by the patient or the doctor. In making the ordinary injection, in order to bring the solution into contact with the walls of the fossa navicularis, the glans is grasped between the thumb and finger in order to close the meatus for the purpose of retaining the injected fluid, with the result that the infected walls of the fossa are pressed closely together and thereby protected from contact with the solution contained in the urethra. In order to avoid this the glans should be grasped just back of the fossa, between the thumb and the finger, and by making gentle pressure on the urethra and at the same time moderate traction on the penis, the urethra will gape wide open and, when turned up, will form a cup into which a few drops of the antiseptic solution employed can be dropped. If one so desires, the anterior urethra can be filled with an antiseptic solution first and then the penis grasped in the manner described above, allowing the solution to flow back, fill the fossa navicularis, and come into contact with the entire mucosal lining.

In addition to the injection described above, the anterior urethra can be cleansed by a gentle irrigation with potassium permanganate (1 to 4000) or neutral acriflavene (1 to 4000). Stronger solutions of neutral acriflavene are likely to be followed by stricture formation. Through-and-through bladder irrigations, introduced by Janet many years ago and popularized later by Valentine, should not be used in the abortive treatment of urethritis. These should be reserved for selected cases of posterior urethritis, as much harm is often done to the anterior urethra by the trauma resulting from forcing the solution by the sphincters. This trauma results in lowering the resistance of the urethral tissues and favoring extension of disease. Absolute quiet and rest in bed is of great benefit

and is generally underestimated. It is of great aid in aborting the disease and shortening the length of infection. Forcing fluids is also of great value, as the infecting organisms are mechanically washed away from the urethra during the act of micturition, and alkalization of the urine is also rational therapy as gonococci do not thrive in an alkaline medium. The urine is easily alkalinized by giving daily six grams of sodium bicarbonate or potassium citrate (the latter usually in combination with tincture of hyocyanus). With the popularization of the antiseptic injection, internal medicaments, which were formerly so popular, have lost favor. Sandalwood oil and the other balsams, sometimes combined with methylene blue, were extensively used years ago but have become less popular in recent years and have, to some extent, given way to the employment of local antiseptic agents. The newer oral antiseptic substances, such as enteric neutral acriflavene 0.03 gram, pyridium 0.1 gram (substitute product, pyridin), and serenium 0.1 gram, have a high bacteriacidal effect, are of some value, and should be used. These are employed in conjunction with the local injection, as the presence of an antiseptic substance in the urine aids to prevent extension of infection. The intravenous administration of mercurochrome 220, introduced by Young and extensively used by Redewell, Potter, and Garrison, although a useful adjunct in the treatment of urethritis does little in aiding to abort the disease. The same might be said of the intravenous administration of gonocrin, used by Doctor Trifu in the military hospitals of Roumania.

Diathermy was popularized by Elrick in 1918 and is a valuable adjunct, as heating of the tissues stimulates chemotaxis and phagocytosis. The ultra-violet ray conveyed by water, reported by Hart and Hartman before the recent meeting of the Western Branch of the American Urological Association held in San Francisco, acts very much like diathermy. Both are valuable, but should not entirely replace chemical antiseptics.

Vaccinotherapy is not extensively used because it has been contended that it aids very little in aborting acute urethritis or reducing the amount of infection. A number of men, however, claim that the poor results obtained, have in some instances been due to its improper administration. Mock, Joubert, and Goy recommend the subcutaneous injection of 0.25 cubic centimeter of gonococcus vaccine immediately after exposure or at the time or the appearance of the discharge and thence after every three days, gradually increasing until the dose of 1 cubic centimeter is reached. They point out that success depends upon the administration of the vaccine during the positive phase, which is during the first five days of infection. From the fifth to the tenth day after the appearance of the disease, there is a negative phase at which time immunity does not take place. The bouillon filtrate of Besredka and of Corbus and Ferry is injected intradermally for the purpose of stimulating the formation of an anti-

toxin which neutralizes the toxin of the gonococcus. In accordance with the new theory of local immunization, Besredka has recommended the local use of the filtrate in the urethra in the treatment of acute urethritis. For the past five months I have been employing the bouillon filtrate, furnished by the experimental laboratory of Parke Davis & Company, intradermally, commencing with 0.25 cubic centimeter and increasing until the dose of 1.0 cubic centimeter is reached, and in some instances the disease has been aborted. In these cases, however, the other measures outlined above were also used, so that one cannot attribute abortion of the disease to the use of the bouillon filtrate alone. It is a valuable addition—among other measures—however, and although it alone might not abort the disease, it tends to lessen the intensity of infection and to minimize the amount of complications.

The proper employment of prophylactic measures outlined above will prevent infection of the urethra in the greater majority of cases. The employment of prophylactic treatment during the incubation period of urethritis will be successful in direct proportion to the shortness of time elapsing after exposure. After urethritis has declared itself, abortion of the disease depends in a great measure upon the relative virulence of the strain of organisms present as measured with the local and general resistance of the patient. However, the intelligent employment of an early antiseptic injection performed in such a way that the solution will come in contact with the walls of the fossa navicularis, the use of a gentle irrigation, rest in bed, the forcing of fluids, and alkalization of the urine, the oral administration of urinary antiseptics, in addition to the intelligent use of vaccine therapy and diathermy, is worthy of a trial and will aid in aborting acute urethritis in a certain percentage of cases.

Hospitalization for Veterans.—The government now with 40,000 beds available for veterans, proposes to build additional hospitals providing for 130,000 more beds at the cost of \$300,000,000, despite the fact that at the present time there are approximately 319,000 empty beds in the 8,000 civilian hospitals. For the government to persist in planning new beds while there is already an oversupply on hand is a tragedy and a crime against the already overburdened taxpayer, who pays and pays. Let it be repeated the proposed veterans' hospital building plan is both an unnecessary burden on the taxpayer and a crime against the medical profession. With government hospital plants totaling 150,000 beds, without doubt there will be built up a more or less political personnel whose sole interest will be to hold onto their jobs by keeping all these beds filled. When the veterans are all dead, whom will these bureaucrats bring in to fill these 150,000 beds? Will the government donate these hospitals for civilian use? Not if the job holders can help it! Rather, by their plan one after another of various groups of the civilian population will be granted hospitalization in government hospitals at government expense, will be treated by government doctors working on salary, and will be withdrawn from the possible clientele of the already harassed private physician; the whole scheme will build up a bureaucracy that knows no master. And the expense will be paid by more taxes—if the taxpayers hold out.—*Illinois Medical Journal*, March, 1932.

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Leaflet Regarding Rules of Publication.—California and Western Medicine has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this journal write to its office requesting a copy of this leaflet.

EDITORIALS*

PASADENA ANNUAL SESSION

May California and Western Medicine in Press During the Annual Session.—The May number of CALIFORNIA AND WESTERN MEDICINE will be printed and mailed a few days after the close of this year's annual session. At the time this is written, we can only speculate concerning the meetings. That they will be fruitful in presentation of scientific achievement may be taken for granted. That the meetings of this session, by those who attend, may be productive of better understanding on many important economic and other problems which are vitally connected with medical practice, is earnestly desired. That a broad outlook on these problems may be taken back to the component societies by their representatives in attendance is likewise devoutly wished.

* * *

Reports of California Medical Association Officers and Committeemen Should Be Read.—In the June number of CALIFORNIA AND WESTERN MEDICINE will be printed the reports of officers and committees and of the House of Delegates and Council. It is urged that members take the time to glance through those reports. It is to be remembered that while officers may be elected and

committees be appointed for this, that or the other work, that the efforts of such officers and committeemen will be of little avail, unless supported by a united and alert profession.

* * *

No Members of the Profession Can Claim Exemption from Their Obligations.—No members of the profession should be so self-centered or so self-satisfied as to permit themselves to think that these economic and allied problems which are now so much to the front are simply expressions of nervousness or idle prating. If there be such members, then in good time they will awaken concerning the readjustments taking place in medical practice, unless such members be so blessed with worldly goods that it matters not to them what happens to their profession or to their colleagues.

* * *

The Place of Organized Medicine in Our Present-Day Needs.—It has been stated that when we gather together to hold medical meetings that we are too prone to follow precedent. In other words, that we at times follow old forms of procedure, which in the light of modern demands, need revision or modification. For instance, in other American groups there is not disrespect or pseudo-shame when subjects of economic importance are broached. Why should it be so in the profession of medicine? Are we not, all of us, obliged to earn our daily bread? If we receive not sufficient compensation in money for services honestly and efficiently rendered, can we maintain our professional existences and our families in the manner which we have a right to expect, when the money and effort in acquiring that knowledge and ability to practice the profession of medicine are taken into consideration? The fact that because as a class we are so tolerant of lack of appreciation by others of what we do that is praiseworthy, only makes our profession and ourselves as individuals, targets for cold-blooded exploitation by designing persons, both without and within our guild.

To our profession, to our families, to ourselves, and to the public, we do an injustice when we sit indifferently by, while the structure of ethical and scientific practice that has been erected by the generous and altruistic endeavors of a host of our fellows in the days gone by, is subjected to onslaught by designing organizations and individuals. It is not to our credit when we permit ourselves to lapse into mental lethargy in these matters.

Because state and county medical society and hospital staff and group meetings keep us alert in matters affecting our professional and economic welfare; these organizations are all of value to us. All of us need association with these coöperative expressions of group endeavor. Not one of us need think he has reached such heights in the profession, to have the right to remain aloof. Rather, the higher our positions and the greater our influence, the more are the responsibilities to which

* Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Medicine Today column, which follows.

we should subscribe on behalf of our profession and what it has always represented.

It is our sincere wish that the sixty-first annual session of the California Medical Association at Pasadena will aid in bringing about a keener recognition of our obligations to the public, to our profession and to ourselves.

OPTOMETRISTS—A SURVEY BY THE COMMITTEE ON COSTS OF MEDICAL CARE

A New Volume Dealing With Optometrists.—Volume 15 of the publications of the Committee on Costs of Medical Care recently came off the press. Its caption is "Midwives, Chiropodists and Optometrists." Here only the twenty pages dealing with optometrists will be commented upon.

This report is a survey that should be of special interest to eye physicians. In a foreword it is stated that before a report is printed by the Committee on Costs of Medical Care, an opportunity is given to members of the executive and general committees to file dissenting opinions. None such were filed in this report. In a field of work so vast as that which the members of the Committee on the Costs of Medical Care have taken on their shoulders, that, however, should not cause surprise.

It is important, however, that these surveys and reports, as they come off the press, should not get into the literature unnoticed, lest statements contained therein that may not be fully warranted, should later be referred to by others as not only having the standing of proven facts but also the implied sanction or endorsement of so great a body as that which in the minds of some, the Committee on the Costs of Medical Care has already become.

* * *

A Criticism of the Committee's Survey.—The particular report here referred to was made by Louis S. Reed, Ph. D., under the direction of Harry H. Moore, Director of Study. It presents an interesting mass of more or less valuable information. If we were to criticize it generally we would be tempted to say that its authors still need a better knowledge of the background and forces of non-sectarian and scientific medicine than they seem to possess, and also need either a wee bit less of diplomacy or somewhat more of backbone than is in evidence when conclusions are put forth on what might be styled as being on a sort of straddling basis.

Because these reports of the Committee on Costs of Medical Care will undoubtedly have a real influence on the trends of medical practice in the years to come (just as did the Rockefeller Foundation-Flexner reports on medical education about two decades ago), it seems worth the while to make them the subject of comment.

* * *

Attempt to Draw an Analogy to Dentistry.—From the summary in this booklet are quoted some excerpts which may be taken to show the

substance of its implied recommendations. These follow:

"... Midwives, chiropodists and optometrists exist as practitioners of special branches of medicine for similar reasons. They supply services which doctors of medicine, either because of lack of interest or because of geographical or pecuniary factors, have failed to provide. They will continue to exist so long as physicians or other practitioners under their direction do not provide equivalent services, equally satisfactory in quality and at the same or a lower price..."

"... The chiropodists and optometrists are on a different footing. On the whole they are better trained to practice in their areas of medical care than are the midwives in theirs. Both these groups hope to obtain professional status and eventually to win for themselves a place in the medical world similar to that now occupied by the dentists. Both feel that they are now having the same difficulties and meeting the same opposition from the medical profession as did the dentists when the latter first sought to establish dentistry on its present basis..."

"... These considerations force the conclusion that the ideal solution of the problems now presented by the existence of chiropodists and optometrists lies not only in close but in organized coöperation between these practitioners and doctors of medicine..."

"... However, one cannot ignore the fact that medicine is today practiced by separate, unorganized individuals. Under individualistic practice, owing to the difficulty of obtaining coöperation among separated individuals, the fullest returns of specialization cannot be obtained—nor can the widest use be made of narrowly trained auxiliaries. So long, therefore, as medical practice continues on its present basis, midwives, chiropodists and optometrists will probably continue to practice as heretofore. Group or institutional medical practice might open the way for organized coöperation between these practitioners and doctors of medicine..."

* * *

Statistical Figures.—In the figures given for the United States, it is stated that "in 1929, 1,343 physicians were specialists in ophthalmology, and 4,980 physicians specialized in "eye, ear, nose and throat." The two groups total 6,325 members.

As to optometrists, it is stated, "There are approximately 20,200 optometrists licensed in this country." Of the licensed optometrists about 20 per cent do very little work, another 25 per cent "are proprietors or employees in jewelry-optical establishments and divide their time between optical work and selling jewelry and other merchandise."

"... The semi-professional, semi-commercial character of present-day optometry is reflected in the various types of optometry practitioners. A portion of the optometrists, like physicians and dentists in private practice, maintain offices in their own homes or in office buildings. These "upstairs" optometrists do not comprise more than twenty-five to thirty per cent of the whole. The remainder of the optometrists practice in stores..."

"... In optical circles, it seems to be generally accepted that glasses worth about \$100,000,000 are sold annually in this country. It is also estimated that at least one-half of this business is done by optometrists... Accepting these estimates for lack of better, it may be said that at least \$50,000,000 is spent annually in this country for the services of optometrists and for the glasses which they make up and sell on their own and doctors' prescriptions..."

The Licensure of Optometrists and Schools of Optometry.—Minnesota in 1901 was the first state to license optometry. Now every state has an optometry board. There are thirteen optometry schools in the United States, eight with an optometry A rating; two with B; two with C; and one with no rating. One of the A rating schools is that which is a part of the University of Southern California. The five optometry schools attached to universities in 1930 graduated a grand total of ten students, but four non-university or independent optometry schools sent out a total of 146 graduates. Inasmuch as the attachment of optometry schools to the five universities has been much emphasized in optometry quarters to show the "professional status" of optometry, the above figures are doubly illuminating. The influence of the ten as versus the 146 graduates must necessarily remain a matter for future estimate.

Concerning other optometry schools, the following quotations may be permitted:

"... The Northern Illinois College of Optometry has the largest student body of any optometry college. ... The institution boasts that it has graduated more optometrists than all other optometry colleges combined. A two-year course is given, upon the completion of which the student becomes a doctor of optometry. ..."

"... In contrast to these schools is an institution known as the Philadelphia Optical College. The course offered by this school is a "Personal extension course of home study." The prospectus states that "The course ordinarily consumes about three months, but apt students who are well informed can complete the course in as much less time as their attainments will permit. ..."

"... For \$25 the student receives instruction and a 'handsomely engraved' diploma conferring the degree of 'Doctor of Optics,' and for \$50 a diploma conferring the degree of 'Doctor of Optometry.' Other diplomas and certificates of varying sorts may be obtained on payment of extra fees. ..."

"If you will send us the names of some of your prominent business and professional men, including newspapers, we will write them a personal letter, advising them of your graduation and recommending you as an accomplished optometrist and worthy of the confidence of your community. ..."

The last excerpt quoted above fits in well with the letters from a chiropractic school of California, as printed in April CALIFORNIA AND WESTERN MEDICINE, page 294.

After reading the above, the query naturally arises: Will the five university optometry schools pull the independent optometry schools up or will the nine independent or non-university schools pull their university sister-schools down?

* * *

Ambitions of Optometric Licensure Boards.—On the legal status of optometry, the following is printed:

"... The optometry laws of the various states are all of the same general pattern. Practically all define optometry as the practice of examining the eye without the use of drugs and prescribing lenses for the correction of ocular defects. ..."

When one remembers that the fundamental knowledge concerning refractive errors of the eye was practically all placed in the literature by eye

physicians, before licensed optometry in the United States was sanctioned, it is interesting to read the following excerpts:

"... Without exception, all of the optometry laws exempt physicians from their restrictions. In other words, while optometry is not considered the practice of medicine, any physician is considered qualified to practice optometry. This provision is resented by the optometrists and they hope eventually to obtain legislation which will prevent physicians from prescribing glasses unless they are especially qualified. ... Physicians who do refractions would undoubtedly—on grounds of professional pride—resent being asked to demonstrate their qualifications for this work before a board of optometrists, and undoubtedly the medical profession will rigorously oppose legislation of the sort here suggested. ..."

* * *

The Merging of Merchandising Optometry and "Professional" Optometry.—The status of optometry in active practice may be gathered from the following quotation:

"... With most optometrists the dominant interest seems to be the sale of glasses, an activity to which the service of eye examination is incidental. Only a small proportion of optometrists make a separate charge for the examination of the eye and prescription of the proper lenses. The vast majority give a 'free eye examination' and include the cost of this service in the price of the glasses sold. ..."

The aspirations of optometrists to have a full professional status is revealed somewhat in what follows:

"... Among optometrists the opinion is frequently expressed that the future will see optometry taking its place as a legitimate medical specialty, alongside of dentistry. ..."

"... Recognizing that professionalism has its obligations as well as its privileges, optometrists have established clinics in New York City, Minneapolis, and a few other places. Recently an optometric clinic was organized in the Orange County General Hospital, in southern California, at the behest of the local medical society. ..."

* * *

Something New—The "Newer Optometry."—And now concerning the "Newer Optometry" which seemingly hopes to relieve the medical profession from having ophthalmologic specialists. The following sentences shed light on this:

"... The optometry practiced by the vast majority of optometrists consists simply of the testing of eyes to determine the refractive error, and the fitting of glasses. The 'newer' optometry includes the use of certain diagnostic procedures such as urinalysis, blood pressure tests, blood counts, etc., the practice of ocular physical therapy, and a desire to go further. ..."

"... The same group apparently has widened its practice to include the treatment of pathological ocular conditions by means other than the use of drugs. ..."

"... The basis of the newer optometry is the feeling that optometry cannot continue to exist unless it 'goes professional,' and that as a profession it cannot thrive on the narrow basis of straight refraction. The newer optometrists believe that the professional optometrist must eventually assume full responsibility for eye care. ..."

* * *

Pathetic Example of Incapacity to Understand Standards of Scientific Medicine.—But where Louis S. Reed, Ph. D., speaking in print for the

Committee on the Costs of Medical Care, shows a seeming and woeful ignorance or incapacity to understand medical practice is in those portions of his survey in which he emphasizes statements that the simpler (?) types of refractive errors do not need highly trained expert knowledge or judgment! He seemingly forgets or does not know that broad knowledge and training are necessary as a proper foundation for accurate diagnosis; and that he who does not possess such is not in position to know when his services can or cannot be legitimately employed. It is the old specious plea of the cultists, who secure their legislative recognition by asserting that they treat only a limited number of diseases and these by special methods, and therefore do not require such extensive education and high requirements. It is blissful economic arrangement for those who profit by it, but unworthy of promulgation by spokesmen of the Committee on Costs of Medical Care.

When Reed states that "the ophthalmologist who spends his time in doing refraction is doing work for which he is overtrained" he is saying something for which he has little warrant in fact. He might well have read what George M. Gould stated in one of his classical articles. The following from a paper by Gould which was printed in the *Journal of the American Medical Association* a half century ago (*Journal of the American Medical Association*, September, 1891) gives a different viewpoint of refraction:

"... Every case is a rule unto itself, so that one can give few general laws to one learning the art. Refraction is a science and an art in intimate union and requires as much patience, delicacy of perception, fineness of judgment and discrimination as any scientific work in the world. In relation to it there are vast fields of inquiry the wisest have hardly begun to explore. The amount of human misery caused by those ocular defects is appalling, and if the prevention and relief of that misery be the motive of scientific medicine, no branch is more important or demands higher powers of mind than that of ophthalmology—and nine-tenths of modern ophthalmic practice consists of refraction!"

Read further what Louis S. Reed, Ph. D., has to state along this line:

"... Patients who consult eye physicians or optometrists fall into three main classes: (1) those with refractive errors in otherwise normal eyes, (2) those with local pathological eye conditions such as cataract, glaucoma, optic nerve atrophy, toxic amblyopia, etc., (3) those whose local symptoms are the result of general systemic conditions, as in syphilis or nephritis. The majority of patients belong to class 1 and require nothing more than a determination of the refractive error and its correction by glasses. Most ophthalmologists admit that the training which optometrists now receive amply qualifies them to perform these services. Difficulty arises, however, in the case of the minority of patients who fall into classes 2 and 3. Lacking a general medical training, optometrists may fail to detect the true nature of the ailments of these patients. Failure to recognize these pathological or abnormal conditions will involve the prescription of glasses unnecessarily, and much more important, the neglect of conditions requiring attention. . . ."

Another Brilliant (?) Statement Concerning Overtrained Eye Physicians.—After stating the above, Author Reed makes statements as follows:

"... Ideally optometrists, because of the limitations of their present training, ought not to accept patients independently. But should highly trained ophthalmologists whose professional training may well have consumed seven or eight years, spend a large part of their time doing refraction work? This being the case, the ophthalmologist who spends his time in doing refractions is doing work for which he is overtrained. While so engaged, his general medical knowledge lies idle; it constitutes an unused overhead for which the patient must pay. . . ."

* * *

Committee's Recommendation of Solution of the Problem.—After thus delivering himself, Reed sums up his viewpoints, and seemingly tells eye physicians what they must do. Inasmuch as his views are printed in a special report, it may be taken for granted that his advice presumably had the sanction of the Committee on Costs of Medical Care. In his summary Reed states as follows:

"... The solution of this problem, it must be obvious, lies in organized coöperation between ophthalmologists and optometrists, and in a division of labor between them. . . ."

This concluding advice is the more interesting because it comes after a portrayal of statements such as have been previously noted, in which the aspirations of optometrists for full professional status were brought out. Eye physicians can ask themselves how they picture the assimilative process into ophthalmology on full professional status, of all the optometrists to whom the practice of optometry is as much a sale of merchandise as it is a pure profession. Reed and the Committee on Costs of Medical Care certainly are optimists if they think that eye physicians will take on such an assimilative task in the immediate future.

AMERICAN MEDICAL ASSOCIATION— ANNUAL SESSION REPORTS

California and American Medical Association Annual Sessions Are Held in May.—The annual session of the California Medical Association meets at Pasadena on May 2-5. The American Medical Association session is held this year at New Orleans, May 9-13. At these two sessions a large number of reports are submitted by officers, councils, committees, and bureaus. Those reports sum up the activities of organized medicine in our state and national organizations. The wealth of detail in these various reports is so great that many members are at a loss to know what to choose for special perusal and consideration. In next month's issue of CALIFORNIA AND WESTERN MEDICINE will be printed the reports of California Medical Association officers and committees, as submitted to the House of Delegates in the *Pre-Convention Bulletin*.

The April 2, 1932, number of the *Journal of the American Medical Association* contained the reports of officers of the American Medical Association. There is much of interest and value con-

tained therein, and for those readers of CALIFORNIA AND WESTERN MEDICINE who have not the inclination to read the reports in detail it may not be amiss to comment on some of the information therein submitted.

* * *

American Medical Association Membership Statistics.—Membership statistics may be dry figures, but their understanding and significance is necessary if the interests of scientific medicine are to be safeguarded through the watchfulness of organized medicine.

In the United States it is estimated that there are about 159,109 licensed M. D. physicians.* The constituent state medical associations whose members compose the membership of the American Medical Association have altogether a total of 99,470 members. This means that there are some 59,639 M. D. physicians in the United States who are not members of their respective county medical societies and who therefore cannot become members of their respective state organizations or of the national association. Secretary West of the American Medical Association, in commenting on these figures, states:

"... In the light of the facts here presented, it does not appear to be probable that the total membership of the American Medical Association can be made to exceed 110,000, even if all the possibilities short of taking 'undesirables' into membership were exhausted. . . ."

In other words, Secretary West thinks that all but about 10,530 of the licensed M. D. physicians of the United States are at the present time members of their respective county medical societies. What proportion of this number should be allocated to California is not known.

California has fifty-eight counties, and of these thirty-nine are recorded as having county medical societies. It must be remembered, however, that California has several county societies made up of two or more counties; and that in several other counties the wide open spaces, covering areas as big as some eastern states, make active county medical societies almost out of the question. Members in such unorganized counties are eligible to membership in the county society located in the most convenient adjacent county.

In California some 10,109 M. D. physicians are registered. Of this number the American Medical Association figures for March 1, 1932, show 5,077 to be members of the California Medical Association. What proportion of the 5,032 M. D. nonmember licentiates are in active practice, and of those who are in active practice, what proportion possess qualifications making them eligible for consideration to county society membership is not known.

Among these 5,032 California M. D. licentiates who are nonmembers must be a considerable number, however, who should be on the California Medical Association membership roster. At this time of the year the newly elected county

society officers could perform a distinct service to organized medicine in California if they created or called together their membership committees for the purpose of planning a survey of all nonmember M. D. licentiates living in their respective counties. There is nothing spectacular in this kind of work, but it is, nevertheless, extremely important and should therefore become a yearly function. It is hoped that every county society will initiate steps to make such a survey. If officers seem forgetful of their special responsibilities in this, then members are urged to call attention thereto, in meeting or otherwise. Organized medicine in California, as elsewhere, should have in active affiliation and membership every eligible licensed M. D. physician.

* * *

American Medical Association Finances and Journal of the American Medical Association Figures.—The economic stress and strain of the last several years reveals itself in the gross income of the American Medical Association which for the year just closed was \$47,000 less than in the preceding year.

Of the 5,077 California Medical Association members who are also on the roll of American Medical Association membership, some 3,564 are also "Fellows of the American Medical Association," and all of such receive the *Journal of the American Medical Association*. The *Journal of the American Medical Association* has some additional 2,120 subscribers from California, a number of whom may belong to the group of 5,032 California M. D. licentiates who are nonmembers of the California Medical Association. An M. D. nonmember of the California Medical Association who is a subscriber to the *Journal of the American Medical Association* would seem to have at least one qualification that would make him worthy of consideration for membership in a county unit of the California Medical Association. The percentage of California physicians who receive the *Journal of the American Medical Association* is 56. For New York, Pennsylvania, Illinois, and Ohio, which exceed California in American Medical Association membership, the respective percentages in the *Journal of the American Medical Association* subscriptions are 64, 62, 65, and 53.

* * *

American Medical Association Package Library Service.—For some years the American Medical Association has maintained a "package library" service, such as is proposed shall be operated by the California State Medical Library, which will begin its active operations in July of this year. Members of the California Medical Association who are interested in library service, and who did not read the opening article by Frances B. van Zandt (who will guide the destinies of the California State Medical Library), and which paper was printed in the April CALIFORNIA AND WESTERN MEDICINE, page 217, are urged to do so. In line with the points brought out in that article,

* The term "licensed M. D. physician" is used because California has seen fit to also license physicians who are adherents to sectarian medicine, such as osteopathy.

the following facts concerning the American Medical Association package library service may be of interest:

"... The package library service furnished 2450 package libraries to physicians throughout the country during 1931. The number for 1930 was 2067. Hence the increase was roughly 20 per cent. This service enables the physician in the most outlying communities who participates in the work of the Association to have readily available the literary documents and communications on any subject in which he may be interested. Since each package library contains from ten to thirty reprints and periodicals, such an increase in the service represents a much greater demand on the personnel. Great care is exercised in the selection of material for these library packages. ... The library regularly replies to inquirers concerning reference questions; approximately 3000 such questions were answered in 1931. ..."

* * *

American Medical Association Council on Pharmacy and Chemistry.—The story of the national Pure Food and Drugs Act is more or less familiar to all physicians. The law was enacted about twenty-five years ago. The official journal of the California Medical Association at that time played a prominent rôle in creating state and national medical opinion in favor of pure drugs and in giving valiant opposition to certain off-color proprietary drug interests. It was at that time that the American Medical Association brought into existence its Council on Pharmacy and Chemistry, whose members have created for themselves so enviable a reputation for work well done. CALIFORNIA AND WESTERN MEDICINE is one of the state journals which regularly prints excerpts from that council's reports. It is not an exaggeration to say that the American Medical Association, through its Council on Pharmacy and Chemistry, has been a powerful stabilizing force in maintaining and furthering the efficiency of the national Pure Food and Drugs Act.

* * *

The Newly Organized American Medical Association Committee on Foods.—More recently an American Medical Association committee on foods began a new but much needed activity. The work of this committee is of great importance to lay citizens and can go far in creating a kindly regard by the laity for altruistic and practical service by the medical profession. Those who have not followed this new American Medical Association activity will find the following excerpts to be of interest:

"... It should be emphasized that the work of this committee has been primarily constructive. It is functioning and operating in a positive manner to bring about truthful and correct advertising in the food field. Its work is educational. Its opinions and decisions are giving proper direction to constructive research in the food industry. It is coöperating in many ways for better nutrition of our people generally. ... Already the office of the Committee on Foods is serving as a clearing house to the food industry, to physicians, to dietitians, and to the public generally. The committee has done much to bring the American Medical Association closer to the everyday life of the people. It is making the public aware of the fact that the medical profession is acting in the interest of the public in all matters affecting nutrition and health. ..."

The American Medical Association Bureau of Medical Standards—Its Aims.—Last year the California Medical Association presented resolutions suggesting the formation of an American Medical Association Bureau of Medical Economics. From the report of that newly constituted bureau some excerpts on the economics of medical care are made because they should have suggestive value for the newly organized California Medical Association Department of Public Relations. These follow:

"... When considering the economics of medical care, one must make a clear distinction between commercial and economic interests. ..."

"... *Commercialism is characterized by:*

1. Unreasonable fees;
2. Alleviation always predicated on cash in hand or no service;
3. Unethical tendencies or practices.
4. Destruction of scientific motive in both individual and the profession at large;
5. Transformation of the profession into a trade or business;
6. Destruction of confidence in the profession; and
7. An insidious tendency toward state medicine. ..."

"... *Economics as applied to medical practice is predicated on sound ethical principles, constructive and reasonable:*

1. Alleviation of suffering, prevention of disease, pursuance of research and the dissemination of dependable information are recognized as the primary obligations of the profession;
2. There should be a just compensation for service rendered;
3. Modern ethical business methods are necessary to provide the highest type of service at the most reasonable cost;
4. Ethical business methods insure confidence in the profession;
5. Correct economic measures insure adequate amount and quality of service to indigent as well as pay patients; and
6. The use of ethical business methods and correct economic measures serve to promote in the profession higher scientific attainments because of greater freedom from financial anxiety. ..."

* * *

It would be possible to continue comment on a large number of other problems confronting scientific and organized medicine which are discussed in the reports of the officers of the American Medical Association, but lack of space prevents. It is hoped that what has been here presented may lead such readers who have passed by the report pages of the *Journal of the American Medical Association* with only a fleeting glance to again refer to them. The reports contain information which should be of value to all physicians.

A New Pituitary Syndrome.—In a lecture given at the Yale Medical School, New Haven, Connecticut, February 24, 1932, Dr. Harvey Cushing called attention to a new syndrome connected with the pituitary gland. He pointed out that, although the clinical signs have been recognized for a number of years, they have not been definitely associated until recently with disease of the pituitary gland. ...

It seems fitting, in view of the careful work done in elucidating this rare condition, that the disease should henceforth be known eponymically as "Cushing's syndrome."—*New England Journal of Medicine*, March 24, 1932.

MEDICINE TODAY

This department of California and Western Medicine presents editorial comment by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to every member of the California, Nevada and Utah Medical Associations to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

“Putrefaction Antigen.”—The recent demonstration that the newly discovered “putrefaction specificity” is at times present in human feces, suggests hitherto ignored etiologic factors in clinical medicine. By the application of quantitative precipitin and complement-deviation reactions Doctor Sulmann of the Nutritional Institute, Berlin,¹ obtained evidence that as a result of bacterial putrefaction, meat proteins acquire wholly new antigenic properties. This new “putrefaction antigenicity” is allegedly independent of the animal species from which the meat is obtained, and also independent of the purposeful or accidental bacterial species producing the putrefaction. This new heterophile specificity is not immunologically identical with any initial or intermediary product of normal peptic or tryptic digestion. It also is alleged to differ serologically from all known end products of destructive proteolysis. The antigen is colloidal in nature. Injected into rabbits, it stimulates the formation of both a specific antiputrefaction precipitin and a specific antiputrefaction complement-deviating antibody. These antibodies react with all putrid meats thus far tested, and also react with putrid milks. They do not react, however, with milks soured by the ordinary lactic acid bacillus.

Stanford University.

W. H. MANWARING,
Palo Alto.

Local Anesthesia in Traumatic Surgery.—In the urgency which is part of the reception and treatment of injured persons in an emergency hospital having large daily admissions, there is prone to be a disregard for the proper consideration of anesthetics to be used.

The very nature of traumatic surgery is such that the time element is an important factor; but the choice of an anesthetic in a given case is infinitely more important.

The surgeon working in a busy emergency hospital realizes fully that no great amount of time may be consumed in preanesthetic preparation of the patient; but regardless of this, many surgeons take for granted that any one of the general anesthetics is quite in order, and proceed accordingly, giving little or no thought to the possibility of accomplishing the same results under infiltration anesthesia. While it is true that there is a definite and ample threshold of safety with the recognized types of inhalation anesthesia and that the primary danger accompanying the administration of the anesthetic is relatively nil, nevertheless the postanesthetic dangers in the form of prolonged vomiting, dehydration, acidosis, pneu-

monia, and lung abscess that may ensue when an improperly prepared patient is given a general anesthetic are too real to be ignored.

We, as surgeons, are duty bound to conserve life and restore impaired and damaged organs to a maximum degree of anatomic and physiologic efficiency. In doing this we are obligated to do so in a manner that protects all interests of the patient; and when we give a general anesthetic to a patient, who for want of time cannot be properly prepared, and whose surgical condition does not contraindicate infiltration anesthesia, we, in thus acting, are not properly protecting the best interests of our patient.

Repair of wounds of the face and extremities and reductions of uncomplicated fractures of the arms and lower legs may be readily accomplished under infiltration anesthesia.

Frequently one sees a patient with such an extensive laceration of tissue, muscles and tendons that anatomical relationships are all but obliterated or distorted. Under infiltration anesthesia the repair work upon these muscles and tendons may be very accurately accomplished for the reason that muscle activity is directly under the control of the conscious patient, and tendomuscular action can accurately be determined and the severed ends accurately approximated.

The usage and indications for local anesthesia in emergency surgery are so extensive that it is only occasionally that the surgeon will be obliged to resort to a general anesthetic. Patience, practice, gentleness in handling tissue, and a knowledge of nerve distribution is all that is required of a surgeon in working to advantage with infiltration anesthesia.

1930 Wilshire Boulevard.

JAMES REEVE DEAN,
Los Angeles.

Health Department Records Held Confidential.—According to *Health News*, the Appellate Division of the Supreme Court has upheld the New York City Department of Health in its refusal to disclose records pertaining to patients treated at the department tuberculosis clinics. The decision was rendered in a case in which action was brought by the plaintiff as beneficiary to recover the amount alleged to be due on an insurance policy. The City Department of Health refused to permit an inspection or examination of records, books, and papers in connection with the treatment of the insured person for a communicable disease on the ground that “to divulge the secret information contained therein would be in violation of the rule of the department and against public policy.” The court held further that, “The protection thus afforded the people of the city of New York is of much greater importance than the interest of a litigant in an action of this character.” The court added: “To divulge to the world the secrets of a patient would not only be shocking, but against public policy”—*Pennsylvania Medical Journal*, April, 1932.

¹ Sulmann, F.: *Ztschr. f. Immunitätsforsch. u. exper. Therap.* 70:472, 477; 71:265, 385; 72:1, 1931.

C. M. A. DEPARTMENT OF PUBLIC RELATIONS

An open forum for progress notes on the department's activities, and for brief discussions on medical economics. Correspondence and suggestions invited. Address the Director, Room 2039, Four Fifty Sutter Street, San Francisco.

The Practice of Medicine a Public Service

By WALTER M. DICKIE, M. D.
Director

The following article by Dr. William H. Ross, issued by the Public Relations Committee of the Medical Society of the State of New York, brings forcefully to our attention the necessity of leadership in public affairs on the part of the medical profession. Both public and private agencies having to do with health and welfare are making the same demands for leadership in our own community. The article follows:

• • •

"The many evidences of changing times, new social trends, and the broadening of medical practice are having the effect of arousing general medical interest all over the state. In nearly every county of the state there is aroused interest in the modernizing of relationships. It has a definite appeal to the profession in general. It seems to be the answer to the shifting of professional obligations from curative practice only, to the inclusion of preventive measures in a doctor's regular work.

"I have completed a comprehensive inventory of the health activities in each county of the state, by whom initiated, and the relation of the local profession to them; the extent, beyond the theoretical support, that the profession has undertaken to correlate and co-operate with other health influences. All health agencies recognize that the medical man is trained in the technical character of medical service and that he is the only one qualified to render it. All that the non-professional agencies want is the medical man to lead them. They just want leadership, and if the profession of medicine is not willing to give this, then how can we justly continue to find fault with somebody who offers to help us to meet problems of public medical service that have been waiting for us just about as long as they will wait? The evidence is plain that the profession has begun to think on these questions. It has begun to look upon medicine as a public service in addition to an individual occupation.

"Times are changing and, with our will or without our will, we must change with them. There are unsolved health and medical care problems. The public naturally looks to the medical profession to answer them, but if the profession does not offer a plan and guidance, someone else will do so—someone must answer insistent public demand.

"There seems to be no great problem in scientific medicine. It steadily advances. Graduate education is expanding all over the state.

"Many men in practice today can remember the authority that once surrounded the doctor in his community. His knowledge was essential to the individuals in the community. His relationships were personal, not surpassed by any other relationships in community estimation. The doctor was not only a leader in medicine, but often in civic affairs. Every doctor who has been in practice thirty or forty years can see a great change in public opinion as to what is expected of the practice of medicine. The doctor was a leader in the conditions that prevailed a generation ago. I believe that he will become a leader in the new conception of what is expected of the practice of medicine.

"The doctor today must recognize that there are new conditions and that there must be a new relationship to meet them. In no sense whatsoever is he to be

any less of a scientific man, but he must broaden his viewpoint. He will not have to sacrifice any of his intimate relationships to individuals, but he must meet certain new social conditions. It will avail him little to fight these conditions, and if he does, he will be defeated in the end.

"The leaders of medicine see this change coming. Some of them say, 'Fight it and retreat as slowly as we can.' Others say, 'Adjust our relationships, guide health proposals by organizations representing public interest, make use of all organizations and of all wealth, continue to fulfill the social function that the medical profession has always filled toward human happiness and human betterment.' We sacrifice not one bit of our scientific attainments by doing this. We only meet the broader conception of the practice of medicine; and after all, it is nothing more than to render to one's families and friends the greatest service that one human being can render to another—to keep him from sickness and to keep him well. No other group in the world can give this service. Our responsibility for this to the public may be defined in words by saying, 'The obligation of a profession to society is "Of him who knows most, most is expected."'

"The public realizes, beyond question, that the doctor is better fitted than anyone else to render health service, and the public looks to him primarily for this service. Let us not be sensitive and let us not get our thoughts twisted because the public is struggling today to meet certain conditions that the medical profession up to the present time has not fully met. It will little avail us to fail to coöperate with the inevitable demands that are growing out of present day social trends; and after all, why should we not face the issue squarely? We are a profession. We are not primarily directed by commercialism. There is just as much of a place today for the ideals of medicine as there ever was. Medicine today is more of a community problem than it ever was. The fact that there are various health organizations interested in human welfare simply means that there are unsolved problems—and that is the only reason that they have gained a foothold. They are simply making a civic effort to bring to our attention certain problems that have not been medically solved. They are making the same kind of civic effort that prevails today throughout the world in all human relationships. Government understands this principle. Nations understand it. Industry understands it. The medical profession is beginning to understand it to a greater extent than it is generally thought that it does.

"The day is not far distant when the profession will understand just what is going on. The trouble with the medical profession in public relations is essentially this—that it keeps about five years behind the trend of public opinion. As a profession, we have long advocated the betterment of public health and the public has long given us that responsibility. We have gotten so busy, however, with our economic problems that we have neglected to keep in close enough touch with public opinion and close enough to preventive medical trends that would, if adopted by us, efface economic problems. The speck of dust on an eyelash has come to seem like a mountain when we look into the distance. We have become piqued for some reason that one can hardly comprehend. Is it because some other group began to do civic medical work and then to bring to our attention unsolved health and medical care problems, that we have not undertaken to improve?"

Proposed City Ordinance Governing Clinics and Their Operation in City and County of San Francisco

A new departure in the control of clinics has been proposed by a committee of the San Francisco Medical Society, of which Dr. L. R. Chandler is chairman and Dr. J. C. Geiger a member.

The purpose of the following ordinance is to license all clinics and place the conduct of the same under the Commissioner of Health.

For lack of space we are not publishing the rules and regulations accompanying the ordinance. However, we would be glad to furnish anyone who is interested a copy.

City ordinance:

1. *Definition of Dispensary or Clinic.*—For the purpose of this article, a dispensary or clinic or other designation of like interpretation is declared to be a person, place, establishment, corporation, institution, association or agent whose purpose it is either independently or in connection with any other purpose to furnish at any place or places either without charge or for part pay or full pay, medical and/or surgical or dental treatment or advice, or medicine, or apparatus, or drugless healing or manipulation, or mental and habit advice and treatment which will include psychiatric, neurological advice, mental healing and faith cures of all types, to any person or persons non-resident, or ambulatory therein, who are suffering from or afflicted with bodily and/or mental infirmities or ailments of any kind whatsoever.

2. *License Required.*—It shall be unlawful for any person, place, establishment, corporation, institution, association or agent to open, conduct, manage or maintain, any dispensary or clinic as above defined within the corporated limits of the city and county of San Francisco without first obtaining a license therefor as hereinafter provided.

3. *Application for and Issuance of a License.*—Any person, place, establishment, corporation, institution, association or agent desiring such license shall make application therefor in writing which shall conform to the general provisions of this ordinance relating to applications for licenses and shall truly state in said application the location or proposed location of such dispensary, the purpose for which it is or is to be opened, conducted and maintained, the accommodations or proposed accommodations for patients which it shall contain, the nature and kind of treatment given or proposed to be given therein and the name and addresses of the person or persons making the application and the names of the person or persons who are conducting or will conduct said dispensary or clinic, stating their training and qualifications for conducting such dispensary or clinic.

It shall be the duty of the Commissioner of Health, upon the presentation of such application, to make or cause to be made, strict inquiry into the facts set out in such application and if upon such inquiry he shall find such dispensary or clinic is or is intended to be so constructed and equipped as to afford proper accommodations for the care of persons treated or proposed to be treated therein, and that the person or persons or intended person or persons responsible for the maintenance and conduct of said dispensary or clinic, and the person or persons actually conducting the care given to patients as defined in this ordinance fulfill the requirements defined by this ordinance, and if in the Commissioner of Health's opinion, it is for the public's benefit, and the rules and regulations and minimum standards established by the Commissioner of Health are being carried out, then the Commissioner of Health shall recommend the issuance of a license.

4. *Rules and Regulations.*—It shall be the duty of the Commissioner of Health to establish the rules, regulations and minimum standards for organization and management of dispensary or clinic so licensed and to

approve the methods of collecting funds from the public, and regulating the purposes and objects to which said funds are applied.

5. *Revocation of Licenses.*—The Commissioner of Health or authorized assistant may at any or all times visit and inspect the dispensary or clinic. He may examine all matters in relation to said dispensary and clinic and ascertain how far they are conducted in compliance with the rules and regulations and minimum standards laid down by him. After due notice to a dispensary, and opportunity for it to be heard, the Commissioner of Health may, if public interest demands, and for just and reasonable cause, revoke a license by an order signed by the Commissioner of Health. Such an order shall state the reason for revoking such license, and the time at which such revocation shall take effect and when at the discretion of the Commissioner of Health, the activities of the dispensary or clinic may be resumed.

6. Any person, place, establishment, corporation, institution, association or agent advertising or maintaining a clinic or dispensary as defined in this ordinance without first having obtained a license therefor as provided in this ordinance or after revocation of such license under the authority conferred by this ordinance to the Commissioner of Public Health, shall be guilty of a misdemeanor, and on conviction thereof, shall be punished by a fine of not less than \$..... and not more than \$..... for each offense.

7. Any person or persons who wilfully violate any of the provisions of this ordinance or do not carry out the rules and regulations and minimum standards laid down by the Commissioner of Health shall be guilty of a misdemeanor and on conviction thereof shall be punished by a fine of not less than \$..... and not more than \$.....

8. Any person or persons who obtain medical or surgical care or other treatment of whatever kind from a licensed dispensary or clinic on false representation shall be guilty of a misdemeanor and on conviction thereof shall be punished by a fine of not less than \$..... and not more than \$.....

* * *

San Mateo County Meeting

Your director had the pleasure of speaking before the San Mateo County Medical Society at a dinner meeting on March 30 on the subject of county health organizations.

An election is to be held in the near future to elect a board of freeholders to write and submit to the people a new county charter, and the county medical society is making an intensive study of the problem in order that they may be able to advise the freeholders in writing the provisions in the charter which have to do with the establishment of a public health department.

The San Mateo County Society is to be congratulated on their efforts; and when more of our local societies undertake the guidance of the people and officials in public health matters, then, and not until then, will we have better health laws.

The Application of Thorium to the Cancer Problem.—According to reports of a discourse by Dr. Joseph Bloodgood in New York recently, thorium has a definite place in the study and treatment of cancer. It appears, according to this report, that the employment of thorium renders the lymph nodes recognizable under x-ray treatment so that it will be possible to determine the extension of a cancer process in some localities where this knowledge may be of use to the operating surgeon. Thorium has been regarded as being radioactive and seems to have a double effect, first, because of its radioactivity and, secondly, in its helpful information with reference to the extension of the disease.—Editorial, *New England Journal of Medicine*, April 14, 1932.

STATE MEDICAL ASSOCIATIONS

CALIFORNIA MEDICAL ASSOCIATION*

JUNIUS B. HARRIS.....President
JOSEPH M. KING.....President-Elect
EMMA W. POPE.....Secretary

THE CANCER COMMISSION OF THE CALIFORNIA MEDICAL ASSOCIATION

High and Low Oxygen Tensions in Experimental Cancer Therapy.—The breathing of special gas mixtures in cancer therapy is of recent origin, the stimulus being furnished by Warburg and his coworkers in their study of the metabolism of tumor cells. He states that if the respiration of a growing cell is disturbed, the cell dies as a rule; if it does not die a tumor cell results. Warburg has found that the cancer cell as a result of this disturbance exhibits what is known as aerobic glycolysis; this means that the cell produces lactic acid by fermentation of glucose even in the presence of oxygen. Normal cells cannot do this; they exhibit anaerobic glycolysis, producing lactic acid only in the absence of oxygen. Cancer cells, of course, also exhibit anaerobic glycolysis. Normal cells obtain their energy by respiration, *i. e.*, oxidation alone, while cancer cells obtain theirs partly by oxidation and partly by aerobic glycolysis.

Assuming then that all tumor cells obtain part of their energy from oxidation and part from fermentation, attempts to kill cancer cells by interference with their energy processes must hinder not only oxidation but also fermentation. Warburg, Wind, and Negelein destroyed the bulk of the malignant cells by exposing tumor animals for forty hours to gas containing only five per cent by volume of oxygen. That the tumor cells survived at the margin prohibits the use of this technique, if used alone, for cancer therapy. In any case it would not be possible for man, particularly a cancer patient, to breathe five per cent oxygen for any length of time.

The opposite treatment, namely, breathing oxygen at abnormally high pressure, has also been investigated. The idea here was that the respiration of the tumor cells might be increased at the expense of the glycolysis and thus render these cells more like normal cells in their metabolism. Campbell and Cramer exposed tumor-inoculated mice and rats to 60 per cent oxygen, *i. e.*, about three times the normal, for several weeks. No effect whatever was observed upon the tumor cells. Other observers have employed much higher pressures of oxygen, but for shorter periods. Fischer and his coworkers kept mice with tumors in practically pure oxygen for eighteen to twenty-four hours under 1.6 to 2 atmospheres pressure. He was able to bring about the disappearance of the tumor in a considerable number of animals, but only during the first week after transplantation and by combining the gas therapy with chemical therapy, *e. g.*, injection of copper and selenium compounds. It would certainly not be safe to use two atmospheres of oxygen for twenty-four hours with man.

Fischer-Wasels, whose results have been published recently in an extensive series of papers by himself and his collaborators in a special number of the *Frank-*

furter Zeitschrift für Pathologie, 1930, Bd. 38, have used a gas mixture containing 95 per cent oxygen and 5 per cent carbon dioxide in experiments with animal tumors. He has employed well over two thousand animals in investigating the effects of his gas mixture on transplanted tumors of mice. When the animals breathed the special gas mixture, 55 per cent of the inoculations did not develop into tumors. Fischer-Wasels considers that the 45 per cent which did develop were specially malignant. He inoculated these gas-treated tumors into 150 untreated animals without one single tumor developing—an astonishing result. With Dr. W. E. Gye, I have tried Fischer-Wasels' gas mixture on mouse carcinoma, but we were not able to confirm the above results. Fischer-Wasels has tried the effect of insulin alone and in combination with glucose and the special gas mixture. The latter combined therapy produced a considerable diminution in rate of growth, also a reduction in size and much necrosis, but there was no complete healing in a living animal.

Conclusion.—Gas therapy alone, so far as it has been tested, is of no value for the destruction of cancer cells. Although breathing a gas mixture of 95 per cent oxygen and 5 per cent carbon dioxide for two to four hours daily may greatly relieve human cancer patients with general weakness and anemia and prolong their lives, there is not sufficient evidence to decide whether the tumor and its metastases are influenced in any way by this gas mixture. Nor is it possible to decide whether better results for the destruction of tumor cells will be obtained by the use of the gas mixture in combination with radiation (x-rays and radium) than by the use of radiation alone.

Abstracted from a "Critical Review of the Use of Gas Mixtures in Cancer Therapy" by J. Argyll Campbell, *The Cancer Review*, Vol. 6, pp. 289-303, 1931,

A. R. KILGORE, *Secretary*.

THE WOMAN'S AUXILIARY OF THE CALIFORNIA MEDICAL ASSOCIATION*

Santa Barbara County.—The Woman's Auxiliary of the Santa Barbara County Medical Society met in the auditorium of the Knapp School of Nursing, Cottage Hospital, March 14, at 8:15 p. m.

Dr. H. J. Ullmann presented the Canti film, which shows growing tissue and the effect of radium on growing and pathological tissue.

Mrs. F. E. Blaisdell, Jr., gave a very good book review, "What Life Should Mean to Us" by the famous exponent of individual psychology, Dr. Alfred Adler.

Following the program a short business meeting was held. Mrs. Blaisdell resigned as treasurer, and Mrs. Holzman was elected in her place.

Delegates to the state convention will be appointed later. The president appointed the following com-

* As county auxiliaries to the Woman's Auxiliary of the California Medical Association are formed, the names of their officers should be forwarded to Mrs. Louis H. Dyke, chairman of Publicity and Publications Committee, 6008 Rose Street, Oakland. Brief reports of county auxiliary meetings will be welcomed by Mrs. Dyke and must be sent to her before publication takes place in this column. For lists of state and county officers, see Advertising page 6. The Council of the California Medical Association has instructed the editors to allocate one page in every issue for Woman's Auxiliary notes.

* For a complete list of general officers, of standing committees, of section officers, and of executive officers of the component county societies, see index reference on the front cover, under Miscellany.

mittees: Membership, Mrs. Atsatt; Public Health, Mrs. Edward Lamb; Publicity, Mrs. Charles Stevens.

‘ ‘ ‘

Orange County.—Quite a large number attended the March meeting of the Woman's Auxiliary to the Orange County Medical Association at the home of Mrs. Dexter R. Ball in Santa Ana. There was a brief business session, which began with reading of the minutes of the previous meeting. Satisfactory reports were given by chairmen of various committees. Flowers were sent to Mrs. Esseingler by the Courtesy Committee.

Mrs. Paige and Mrs. Neighbours are new members. A greeting was given to several state officers who were special guests, as were also some others.

Mrs. Coulter introduced the speaker, Doctor Comstock of Los Angeles and Pasadena, who spoke on "Factors of Heredity." She stated that everything is made up of cells with a controlling center. There is a gene for every inherited quality in each human being. Doctor Comstock had charts to illustrate the division and reuniting of cells.

After the meeting adjourned the hostess served a beautifully appointed tea.

‘ ‘ ‘

San Luis Obispo County.—Mrs. Charles P. Proudfoot, secretary-treasurer of the Woman's Auxiliary of the San Luis Obispo County Medical Association, writes that the entire membership of their auxiliary is planning to attend the state convention in Pasadena.

A branch of the county library has been started in their General Hospital through the coöperation of the General Hospital superintendent and her staff of nurses and the county librarian. It will serve a daily average of 125 persons. The librarian plans to install two hundred books and magazines which will be wheeled about the hospital for the patients' inspection and choice.

The names of the new officers are as follows: Mrs. Howard E. Gallup, president; Mrs. Frederick R. Mugler, vice-president; Mrs. N. J. Shields, second vice-president; Mrs. Charles P. Proudfoot, secretary-treasurer; Mrs. Chester, J. Teass, corresponding secretary.

News

Mr. Cargill, circulation manager for *Hygeia*, in his recent report to the American Medical Association House of Delegates stated that the California auxiliary is the only source from which *Hygeia* subscriptions have showed a gain in 1931 over 1930.

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In Oregon, which began its *Hygeia* drive following Mrs. McGlothlan's visit in November, subscriptions for *Hygeia* have been placed in 410 schools for use in their health work, and fifty-three other subscriptions have been received. The auxiliary in Oregon is starting a monthly mimeographed, single sheet, news letter, supplying state, national, and county news.

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Preliminary program of Woman's Auxiliary meeting at New Orleans, May 9-13, at Jerusalem Temple, 1137 St. Charles Avenue:

Monday, May 9

6:00 p. m.—National board dinner and pre-convention meeting (for board members only), Orleans Club, 5005 St. Charles Avenue. Tickets \$1.50.

Tuesday, May 10

9:00 a. m.—General meeting, Jerusalem Temple, Mrs. Arthur B. McGlothlan, presiding.

12:30 p. m.—Buffet luncheon, Jerusalem Temple. Tickets, \$1.

2:00 p. m.—Walk through Vicux Carre, with guides, starting from the Patio Royale.

4:00 p. m.—Tea, Patio Royale.

8:00 p. m.—General meeting of the American Medical Association, Auditorium.

10:00 p. m.—Reception and dance in honor of the Woman's Auxiliary, Tip Top Inn, Roosevelt Hotel; hosts Orleans Parish Medical Society.

Wednesday, May 11

9:00 a. m.—General meeting, Jerusalem Temple, Mrs. Arthur B. McGlothlan presiding.

12:30 p. m.—*Auxiliary luncheon, Southern Yacht Club (twelve minutes from Canal Street or Jerusalem Temple). Luncheon tickets, \$1.50. Transportation, 25 cents.

2:30 p. m.—Post-convention board meeting, Southern Yacht Club.

2:30 p. m.—*Through Garden Gates; glimpses of New Orleans.

4:00 p. m.—Teas in private residences. New Orleans Country Club.

8:30 p. m.—Divertissements in the Garden.

10:00 p. m.—Buffet supper.

Negro Spirituals, courtesy of the Woman's Auxiliary to the Louisiana State Medical Society.

Thursday, May 12

9:00 a. m.—General meeting, Jerusalem Temple, Mrs. Walter Jackson Freeman presiding.

10:00-10:50, 11:00-11:50 a. m.—Special Round Table conferences, Jerusalem Temple.

12:00 noon—Buffet luncheon, Jerusalem Temple. Tickets, \$1.

1:00 p. m.—*Trip to Oak Alley Plantation; visiting Spillway. Returning at 6 p. m. (Round trip, \$2 per person.)

Or 2:00 p. m.—*Round trip over Lake Pontchartrain, via New Bridges. (Two dollars per person.)

Or 2:30 p. m.—*Trip to Versailles Plantation, Battlefield of New Orleans; docks and wharves. (Round trip, \$1 per person.)

Or 2:30 p. m.—*Delgado Museum and City Park; Newcomb Art School and Audubon Park. (Round trip, \$1 per person.)

Or 2:30 p. m.—*Mayan Exhibit, Tulane University. (Round trip, 25 cents per person.)

9:00 p. m.—President's reception and ball, Auditorium.

Friday, May 13

9:00 a. m.—*Trip to Gulf Coast. Leave L. & N. Station at 9 a. m., returning to New Orleans at 6 p. m. (Round trip, including luncheon and beautiful scenic drive along the coast, \$6 per person.)

10:00 a. m.—Golf tournament, Metairie Golf Club.

COMPONENT COUNTY SOCIETIES

FRESNO COUNTY

The Board of Governors met at the University-Sequoia Club Monday noon, April 4, with Doctors Scarboro, Schmidt, Tillman, and Aller present. Bills to the amount of \$38.75 were audited and approved.

A letter was read from Dr. W. M. Dickie, director of the Department of Public Relations of the California Medical Association, requesting our society to appoint a committee on public relations. It was decided that our standing Publicity Committee act as the committee on public relations also.

A Parent-Teachers Association letter was read and discussed regarding pre-school examination. Doctor Scarboro will formulate a letter to the Parent-Teachers Association in reply.

* Transportation paid by individual.

All trips start from Jerusalem Temple.

The monthly meeting of the Fresno County Medical Society on April 5 was held at the Wish-I-Ah Sanitarium at Auberry, members being guests of Dr. E. R. Morris. Dinner was served at 6 p. m., followed by an inspection of the buildings.

Business meeting at 8 p. m. followed the dinner.

After reading of minutes and communications, the following letter was adopted, a copy ordered sent to the Parent-Teachers Association and one to the newspaper for publication.

Examinations of Pre-School Children:

"The problem of the pre-school examination has been brought up annually for two or three years and, in our opinion, has never been satisfactorily solved.

We gather that the idea of the Parent-Teachers Association is primarily to have a group of clinics for the pre-school child. We realize that this, theoretically, is a fine thing, but from the standpoint of the medical profession, quite impractical.

These children, and primarily their parents, fall into several groups:

1. A fairly large group who would prefer to go to their own physician for this examination and opinion as they are ordinarily accustomed to do.

2. A group who prefer some special physician, but cannot afford to pay for services. Any of us are glad to take care of these in our offices, as we do very often.

3. A group who do not care where they go and are definitely indigents. The General Hospital, through its director, has stated its willingness to help cover these at its regular clinic, under welfare rulings for admission to clinics.

4. A large group, unfortunately, indifferent to the examinations or its advice. It is our impression that some of these might come to a central clinic, but the advice would be wasted. If they are so indifferent that they cannot take the time to take the child to a doctor's office, certainly they cannot be expected to do so later for corrective work.

5. The schools have a definitely organized health department. We are informed by its head that it has never taken any part in these examinations in the past, nor does it anticipate doing so now. It would seem to us that the check-up of the school child is one of its primary functions, and it should cover certainly a large group of three and four, either before the school is out in spring, or early in the fall. It is extremely impractical for a physician to pick up a few instruments and go to a large room, unequipped, and make a group of examinations that are of any practical value, while if a child is brought to his office a few minutes with proper equipment is much more efficient. This is a factor which we are considering most.

It would seem to us that much more could be accomplished by trying to educate parents to have their children examined under proper circumstances, rather than have a group of inefficient clinics at times which are inadequate.

Hoping this gives you the attitude and opinion of the Fresno County Medical Society, this report being unanimously adopted at its last regular meeting. This should solve your problem once and for all."

Committee reports then were presented.

Dr. C. O. Mitchell reported that a radio had been purchased for Dr. W. T. Crawford of Fowler and delivered to him. Dr. Crawford is sixty-eight years of age and has suffered loss of vision from glaucoma. Doctor Crawford was indeed very much pleased with his gift.

Doctor James reported for his committee on vaccination of dogs for rabies.

Twelve thousand dogs had been vaccinated, one thousand killed, and five thousand in the county had received no treatment.

Doctor Frawley, from the same committee, thinks there are too many cases of rabies in the county, about twenty cases having been treated at the General Hos-

pital. He thinks the county supervisors should do more about it.

Dr. C. O. Mitchell moved that the present committee be continued and the Board of Supervisors be again urged to give the rabies situation its immediate attention. Seconded by Doctor Tillman and carried.

Doctor Dau, from the Committee on Tuberculosis, reported the need of more beds and that the campaign on early diagnosis of tuberculosis had done a great deal of good, especially in smaller communities. The new campaign is being started now.

Doctor Scarboro reported that a resolution of condolence and regret in the passing of Dr. Harry Craycroft would be formulated and mailed to the family as well as placed on the minutes of the society.

Dr. E. R. Morris, the host as well as speaker of the evening, told of the national campaign through the state and local organization for the early diagnosis of tuberculosis. Literature is to be sent out to all. Schools are urged through teachers and principals to be alert for symptoms and send pupils to doctors. The present bed capacity cannot be increased, as it is all the county can support. Many persons will have to take treatment at home under supervision of family physicians. Patients in the institutions have a thorough course in the care of tuberculosis patients, and when they go out from there they will help educate the community in which they live.

Doctor Morris gave a very able discussion as to arriving at a definite correct diagnosis of early tuberculosis through history, inspection, palpation, percussion, auscultation, x-ray examination, and through laboratory tests.

ELMER J. SCHMIDT, *Secretary*.



NAPA COUNTY

The regular monthly meeting of the Napa County Medical Society was held at Cedar Gables, Napa, April 6. The meeting was preceded by an excellent dinner.

The meeting was called to order by President C. H. Bulson.

Members present were: Doctors C. H. Bulson, C. A. Johnson, G. I. Dawson, A. K. McGrath, G. J. Wood, H. V. Baker, L. Welti, W. L. Blodgett, D. H. Murray, and M. M. Booth.

The following guests present were: Dr. D. E. Osborne of St. Helena and Mr. Eric Lawson of Rutherford.

The society was honored by the presence of Dr. D. E. Osborne of St. Helena, who was one of the founders of the Napa County Medical Society and who wrote the constitution and by-laws of the society. Doctor Osborne was called upon by President Bulson for a few remarks. He spoke on medicine and surgery of the time when he was a student at the University of Michigan and during the time of his earlier years in practice. He stated that modern medical and surgical science is scarcely seventy years old, Lord Lister having first used the carbolic spray in surgery in May, 1866.

Mr. Eric Lawson of Rutherford, as a representative of the Napa County Tax Reduction League, was present and spoke on tax reduction, giving the society a rather concise idea of the tax conditions in the county.

Dr. D. H. Murray of Napa gave an excellent paper on *Pneumonia*, discussing the etiology, complications, sequelae, and treatment. He covered the subject in a most complete fashion, stressed the use of digitalis therapy where indicated, and the necessity of expert nursing. His paper was discussed capably by Dr. Lawrence Welti of Napa.

Dr. C. A. Johnson of Napa read an interesting paper on *Physiotherapy*. He stressed the selected treatment by diathermy for sprains, bruises, myositis, osteomyelitis, fractures, etc. Doctor Johnson stated he feels that the medical profession has been lax in the use of physiotherapy and that this laxness has

probably resulted in people getting into the hands of irregular practitioners. His paper was discussed by Doctors C. H. Bulson and D. H. Murray.

✱ M. M. BOOTH, *Secretary*.

ORANGE COUNTY

The regular monthly meeting of the Orange County Medical Association was held on Tuesday, April 5, at 8 p. m. in the Chapel of the County Hospital. Besides a good attendance of members, many nurses of the Orange County Nurses' Association were present as special guests. The meeting was called to order by Vice-President Wallace in the absence of the president. A report of the most recent meeting of the board of managers was made by the secretary, in which was outlined the details of a proposed medical contract of the California Medical Corporation, Ltd., and the board's action in recommending that all members refrain from entering into such a contract. It was moved by Dr. H. A. Johnston and seconded by Dr. S. Theron Johnston that the board's recommendation be upheld by this society. This was unanimously carried. A report by Dr. R. A. Cushman, chairman of the Committee on Medical Economics, was made in which he stated that a meeting of his committee was recently held and the questionnaire from the American Medical Association carefully studied. This questionnaire has since been filled out and forwarded to the national secretary.

The question as to a patron membership to be taken out in the Barlow Medical Library for another year was discussed. Many members expressed their approval of such action, and on motion by Doctor Zaiser, seconded by Doctor Burlew, it was unanimously carried that the society continue its membership in the Barlow Medical Library for another year.

A letter of thanks and appreciation from relatives was read by the secretary for the bouquet of flowers sent to the recent funeral of Mrs. Wickett.

The first reading on the application of Dr. Harry C. Nelson, on transfer from San Bernardino County, was heard.

The scientific program of the evening consisted of two excellent papers on *Tuberculosis*. Dr. Edward W. Hayes of Monrovia chose *Childhood Tuberculosis* as his subject; this paper was beautifully illustrated by lantern slides. He stressed the importance of early diagnosis and explained the various changes that take place in this particular type of infection. Dr. Waldo Wehrly of Santa Ana gave a most interesting and practical paper on *Work at the Orange County Sanitarium*. A large number of x-rays were shown of his patients in the different stages of the disease. Discussion of these papers was led by Doctors F. O. Kaps and K. H. Sutherland of Santa Ana and Dr. H. A. Johnston of Anaheim. A unanimous vote of appreciation was extended to Doctors Hayes and Wehrly for their part in the evening's program.

HARRY G. HUFFMAN, *Secretary*.

PLACER COUNTY

The Placer County Medical Society held its March meeting at the Freeman Hotel in Auburn on Saturday evening, March 26, at eight o'clock. There were present the following members and visitors:

Members—Doctors Eveleth, Kalman, Miller, Schofield, C. C. Briner, Monica Stoy Briner, Dunievitz, Kindopp, Russell, Fay, L. E. Jones, Lewis, Rooney, Mackay, Myers, P. D. Barnes, and Peers.

Visitors—Doctor Hirsch of Los Angeles, Doctors Kanner, Zimmermann, Gundrum, Scatena and Schoff of Sacramento, Dr. Ward of Auburn, Dr. Charles W. Singer of London, England, and Dr. Robert T. Legge of Berkeley.

Following the routine business, President Eveleth introduced Dr. Robert T. Legge, professor of hygiene and university physician of the University of California, who addressed the society on the subject, *Hazards of the Modern Home and Methods of Treatment*.

Doctor Legge outlined the dangers of carbon monoxid, poisonous chemical solvents, refrigerants, insecticides, and injuries due to burns and electric shock, following which he outlined the latest therapeutic measures adopted by physicians to counteract the effects of these poisons.

The second address of the evening was given by Dr. Charles W. Singer, professor of medical history of the University of London, England, and one of the world's eminent medical historians. Doctor Singer's subject was *Hippocrates, the Father of Medicine*.

Doctor Singer traced the origin of Greek medicine, gave a description of the form of the original temple of Aesculapius and outlined the course of the patient from the time of his arrival through the various shrines and gave a description of the treatment such a patient received. He also sketched the life of Hippocrates and, in a most interesting manner, told the story of his work, aphorisms, and of the Hippocratic oath. The lecture was profusely illustrated by lantern slides.

ROBERT A. PEERS, *Secretary*.

SAN BERNARDINO COUNTY

The April meeting of the San Bernardino County Medical Society was held at Loma Linda on Tuesday, the twelfth.

Dinner was served at 7 p. m., seventy-five members and guests being present.

The meeting was opened at 8 p. m. by the president.

Dr. A. N. Webb of Lake Arrowhead was unanimously voted on for membership.

Nominations for officers from the floor were called for, but none were made.

Two papers were then read: *Treatment of Osteomyelitis with Special Reference to the Use of Maggots* by Dr. S. B. Richards of San Bernardino, with discussion opened by Dr. F. E. Clough of San Bernardino; and *Treatment of Fractures at the Neck of the Femur with Special Reference to and Demonstration of the Use of the Jones Splint* by Dr. A. E. Gallant of Los Angeles. Discussion was opened by Dr. K. L. Dole of Redlands.

An unexpected addition to the program was the appearance of Dr. C. Jones, who supplemented the second paper by an illustrated discussion of the use of his splint.

The secretary was instructed to thank the members of the staff at Loma Linda for the most excellent dinner and evening's entertainment.

E. J. EYTINGE, *Secretary*.

SAN DIEGO COUNTY

The regular meeting on March 8 was addressed by Dr. George Piness of Los Angeles. Doctor Piness spoke on *Practical Application of Allergy in General Medicine*.

On Wednesday, March 23, the Academy of Medicine presented Dr. George E. Brown, head of the medical division Mayo Clinic, in a lecture on *Hypertension*. Doctor Brown presented the pathology of the various stages of hypertension and demonstrated the course of hypertension cases of long periods of time, showing seasonal variation and the effects on the physical and the emotional stress. He also considered the relationship of sympathectomy and various drugs to hypertension.

Through the courtesy of the Academy of Medicine the guest speaker at the regular meeting of the county society on April 12 was Dr. Walter Bradford Cannon of Boston. Doctor Cannon spoke on *The Role of the Sympathetic System in the Control of Internal Environment*.

The hospital committee for the San Diego General Hospital has authorized the reopening of the malignancy board at the County Hospital. The board is to consist of the members of the surgical staff during their rotating term of service, the resident pathologist and the resident radiologist, with the assistance of a group of consultants in surgery, pathology, medicine, and radiology.

LYELL C. KINNEY.

SAN JOAQUIN COUNTY

The stated meeting of the San Joaquin County Medical Society was held Thursday, March 3, at 8:30 p. m. in the Medico-Dental clubrooms, 242 North Sutter Street, Stockton. The meeting was called to order by President George H. Sanderson.

The applications of Doctors Langdon and Kyddson, having been approved by the Committee of Admissions and by the state office, these doctors were declared members of the society. The application of Doctor Griner was read and passed to the Committee on Admissions.

The matter of the conduct of free and county clinics was read and passed to a special committee appointed by Doctor Sanderson, consisting of Doctors Sippy, Gallegos, and English.

There being no further business the scientific program was opened by Dr. Maurice L. Lubin of San Francisco with a paper on *Postoperative Pulmonary Complications—Their Prevention and Treatment*. Doctor Lubin said that postoperative pulmonary atelectasis can be prevented, it is amenable to treatment, and if more of us will give this pulmonary complication the consideration which it warrants, the patient will not only be spared an unnecessary burden during his postoperative convalescence, but the incidence of postoperative atelectasis and postoperative pneumonia will be diminished.

In conclusion, Doctor Lubin stated:

1. The prophylaxis and treatment of postoperative pulmonary atelectasis precluded a clear understanding of the mechanism of its etiological factors, namely, internal drainage.

2. By internal drainage is meant the movement of secretions from place to place within the tracheobronchial tree so that bronchi are occluded and infection is spread. The movements of these secretions are dependent upon the posture of the patient, the nature and quantity of the tracheobronchial secretions and the size and course of the bronchial stems.

3. Buccal and nasal secretions, by gravitating into the tracheobronchial tree even during the presence of the cough reflex, play a significant rôle in the production of pulmonary atelectasis and pneumonia.

4. The early recognition of postoperative pulmonary atelectasis is important for two reasons: First, it allows an earlier institution of treatment, and facilitates a more prompt return of the atelectatic lobe to normal; second, it obviates the dreaded postoperative pneumonia which may occur in atelectasis of longer duration.

5. The administration of postural exercises, carbon dioxid inhalations, and expectorants are of proven value in the treatment of postoperative pulmonary atelectasis.

6. Bronchoscopy, in specific instances, warrants a place in our armamentarium for the prophylaxis and treatment.

7. An appreciation of internal drainage and proper application of its fundamental factors can diminish the incidence of postoperative pulmonary atelectasis and postoperative pneumonia.

Dr. Edward C. Faulkner of San Francisco spoke on *Diagnostic Pneumothorax—Its Value in the Accurate Localization of Intrathoracic Tumors*. His paper was very well illustrated with schematic lantern slides. He also had a number of x-ray plates to demonstrate the effects of the Singer-Phillips pneumothorax apparatus during inspiration and during expiration, and with the patient in the horizontal position.

The doctor arrived at the following conclusions:

1. The introduction of air into the pleural cavity for diagnostic purposes has been termed "diagnostic pneumothorax." The procedure is relatively easy to perform and does not aggravate the patient's condition.

2. Diagnostic pneumothorax is of definite value in the localization of intrathoracic tumors and permits the differentiation of mediastinal masses from those arising in the lung, pleura, and chest wall.

3. It also indicates the amount of mobility of the mediastinum, the site of pleural adhesions, and the problems likely to be met at the time of the operation.

4. The diagnostic pneumothorax study of mediastinal tumors is incomplete unless a careful fluoroscopic examination is made in addition to the roentgen plates.

Dr. William B. Faulkner, Jr., of San Francisco read a paper on *The Conservative Treatment of Pulmonary Abscesses*. He said the treatment was essentially that for other abscesses. In general, to build up the patient's resistance; to provide drainage and obliteration, and give postural exercises. He illustrated his talk with views to show the different types of abscess; the effect of various complications; and the results of posture and drainage. In conclusion, he emphasized the fact that 80 per cent of the cases are cured by pneumothorax alone. Chronic cases must be dealt with by surgical treatment.

At the close of the symposium the papers were discussed by Doctors Vischi, O'Connor, Dewey Powell, and Broadus.

C. A. BROADUS, *Secretary*.



SANTA BARBARA COUNTY

The regular meeting of the Santa Barbara County Medical Society was held on Monday evening, April 11, at St. Francis Hospital, with President H. O. Koefod presiding.

The president introduced Dr. Henry J. John of the Cleveland Clinic, who gave a most complete and comprehensive discussion of *The Carbohydrate Metabolism in Hyperthyroidism*. During the discussion he presented statistical charts and also the charts of a series of patients, showing disturbed carbohydrate metabolism in hyperthyroidism. The paper was discussed by Doctors Sansum, Gray, Shelton, and Koehler.

The society then went into executive session and the Public Relations Committee presented the following recommendations, through the chairman, Doctor Henderson:

1. That the plan presented at the last meeting of the society regarding the amalgamation of the county and city health departments does not appear to be a practicable nor a feasible one for Santa Barbara. A more complete report, with a suggested plan, will be given at the next meeting.

2. That no member of the society be forced by any organization at any time nor under any circumstances to care for any patient not an indigent, without charge. (This recommendation was made in view of the fact that the county carries no industrial insurance and the supervisors have issued an order that all injured employees be taken care of in the General Hospital by the county physician and staff without pay.)

3. That a publicity committee of three or more members be appointed with the following duties:

- (a) Censorship or sponsorship of all newspaper articles emanating from the society or any member thereof.

- (b) Direct appropriate publicity for worthwhile movements.

After discussion by Doctors Freidell, Atsatt, Brown, Stevens, and Ullmann, it was moved, seconded and unanimously carried, that the recommendations be adopted and spread upon the minutes of the meeting.

The president appointed on the Publicity Committee the following: Doctors Freidell (chairman), N. H. Brush, and C. T. Roome.

Doctor Ullmann, councilor for this district, made an official visit and reported that Dr. Walter M. Dickie has been appointed director of Public Relations, to serve until the state meeting.

He also reported, as a member of the Cancer Commission, the following:

"The Cancer Committee are to meet the cancer problem through educational propaganda to the medical profession, stressing the early diagnosis and proper treatment. The committee are also going to give a standard procedure for determining the salient points on diagnosis and the minimum requirements for treatment."

The president appointed Doctor Means as chairman of the History and Obituaries Committee.

The application of Dr. Harry H. Alexander was read and upon balloting he was unanimously elected into the membership of the society.

W. H. EATON, *Secretary*.

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SANTA CLARA COUNTY

The regular March meeting of the society was called to order by President Fagerstrom in the Medico-Dental Building auditorium.

The applications for membership of the following doctors were read and referred to the Admissions Committee: Dr. Leon Melkonian, Gilroy; Dr. E. M. Roth, Palo Alto.

The following physicians, having been favorably recommended by the Admissions Committee, were elected into the society: Dr. G. D. Barnett (transfer), Palo Alto; Dr. Isidor E. LeDuc, San Jose.

A communication from the Parent-Teachers Association thanking the society for its coöperation in the past, and announcing their intention to conduct a round-up in the fall was read.

The following program of talking motion pictures was presented through the courtesy of the Petrolagar Company:

1. *Anatomy of the Female Pelvis and Perineum* by Drs. H. B. Kellogg and W. S. Windle, department of anatomy, Northwestern University, Chicago.

2. (a) *Subtotal Abdominal Hysterectomy for Uterine Fibroids*.

(b) *Vaginal Hysterectomy for Uterine Prolapse* by Dr. H. O. Jones, department of gynecology, Northwestern University.

LUCAS W. EMPEY, *Secretary*.

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SONOMA COUNTY

The April meeting of the Sonoma County Medical Society was held at the Sonoma State Home at Eldridge. Dr. F. O. Butler, medical superintendent, entertained the members of the Napa County Society as guests. Fifty-four were in attendance and a delightful dinner preceded the meeting.

The applications for membership of Dr. D. C. Oakleaf of Cloverdale, Dr. E. T. Noall of Santa Rosa, and Dr. M. B. McAulay of Petaluma were presented and favorably acted upon.

The program consisted of talking moving pictures demonstrating surgical operative treatment, and were supplied by the Petrolagar Company.

W. C. SHIPLEY, *Secretary*.

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STANISLAUS COUNTY

The regular monthly meeting of the Stanislaus County Medical Society was held on April 8, nineteen members of the medical society being present.

No new business came before the meeting.

Doctor DeLappe discussed the moving of moribund cases to the County Hospital. He suggested that the county officials attend such patients in homes without moving the patient to the hospital.

Mr. Hoff, a representative from the Petrolagar Laboratories, showed four reels of motion pictures, which were very interesting, on *Anatomy of the Female Pelvis and Perineum and Repair of Urthrocele, Cystocele, and Lacerations of the Cervix*.

DONALD L. ROBERTSON, *Secretary*.

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TULARE COUNTY

The regular meeting of the Tulare County Medical Society was given over to the annual meeting with the Tulare County Bar Association, preceded by a banquet at Motley's Café at 6 p. m.

Dr. J. C. Geiger, health officer of San Francisco City and County, delivered the address of the evening.

His subject was *Fifty Years' Progress in Public Health*, an inspiring talk that was equally enjoyed by members of both professions.

Attorney Thomas Crowe president of the Tulare County Bar Association, responded for the members of the bar in expressing appreciation to Doctor Geiger for his instructive address.

The meeting was made all the more enjoyable through the kindness of Mrs. Fred G. Kline, who rendered several vocal numbers, accompanied by Miss Elsie Magarian at the piano.

Fifty-four members and guests were in attendance.

The minutes of the previous meeting were not heard, but it is reported by the committee appointed that the Tulare County supervisors turned down the proposal to establish a full-time health unit in Tulare County. Dr. Giles S. Porter presented the plan to the supervisorial body.

KARL F. WEISS, *Secretary*.

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VENTURA COUNTY

The April meeting of the Ventura County Medical Society was held in the Clinic building of the Ventura County Hospital at 8 p. m. on April 12, Dr. W. S. Clark presiding.

Those present were: Doctors Foskett, Bianchi, Mosher, Coffey, Illick, Achenbach, W. S. Clark, Smolt, Lillian Smolt, Groff, King, Bardill, Shore, Hendricks, Homer, Grant Clark, Felberbaum, and Armitstead. Guests: Doctors Nevius and Ullmann.

The society has been notified by the Bank of Levy, Oxnard, that there is a balance of \$34.50 to its credit there that dates from 1922.

Doctor Nevius of Los Angeles presented some interesting x-rays, and discussed the treatment of pulmonary tuberculosis by pneumothorax.

Doctor Ullmann, junior councilor for the district, and also member of the Cancer Commission, spoke on the objects of the Cancer Commission.

Doctor Mosher was appointed chairman of a Committee on Public Relations, such committee being requested by the State Association.

Dr. D. G. Clark was appointed program chairman for the May meeting.

ARTEMAS J. STRONG, *Secretary*.

CHANGES IN MEMBERSHIP

New Members (72)

Alameda County—Lynn Foree, Frank K. Haight Norman B. Leet, Harlin L. Wynns.

Fresno County—Wayne A. Hunt, Charles E. Nixon.

Kern County—George R. Cutting, Harold Louis Schlotthauer, Madge Quick Schlotthauer.

Los Angeles County—

Daniel H. Calder
William Philip Corr
Frederick J. Crease
Irving Herbert Eddy
T. K. Farnsworth
Kenneth W. Gordon
George B. Greenbaum
Charles Lyle Hawk
A. Ludwig Lindberg
Edward Clarence Lynch
William L. C. Macbeth
George E. Malmgren
Alex. B. Montgomery
Paul H. Moore
Elmer S. Mortensen

Fred H. Nelson
Barclay E. Noble
Waldo R. Oechsli
Roderick Alan Ogden
Francis M. Pottenger, Jr.
Frank Lane Ready
Paul A. Reichle
John P. Sampson
Harry A. Smith
Lyndon E. Taylor
Harry Wellington Vance
Wesley Bailey Van Cott
C. Fred Wilcox
M. E. Wilmoth

Merced County—James Ashley Parker.

Monterey County—Joseph Bernard McCarthy.

Sacramento County—Edward C. Faulkner.

San Bernardino County—Donald S. Gidley, George Max Webster.

San Diego County—Winston C. Crabtree, Francis Edward Jacobs.

San Francisco County—

H. Glenn Bell
Konstantine I. Berejkoff
David K. Chang
Harry Eugene Coffey
Norman Austin David
Martin W. Debenham
Clifford E. Dietderich
Olive Nisley Ehrenclo
John Henry Golden
Avery M. Hicks
Louise C. Knight

George T. Lenahan
Joy L. McClure
Meyer Louis Mizel
Thomas Francis Mullen
George E. Nasser
Wrenshall A. Oliver
Ernest V. Orsborn
Wallace B. Sargent
Salvatore Schiro
Harlan Lewis Smith

*Solano County—*H. Vance Clymer.

*Stanislaus County—*Richard D. Husband.

*Yolo-Colusa-Glenn County—*Jerome Lee Rawhauser,
Ray E. Nichols, T. Deane.

Transfers (3)

James B. Cutter, from San Francisco to Los Angeles County.

George G. Hawkins, from San Joaquin to Fresno County.

George C. Sabichi, from Kern to Los Angeles County.

Resignations (11)

Leo Buerger, from Los Angeles County.

Milton H. Damron, from Los Angeles County.

John N. Force, from Alameda County.

Ernest V. Frederick, from Los Angeles County

Hiram W. Hunsaker, from San Francisco County.

George Childs Macdonald, from San Francisco County.

Peter Obarrio, from San Francisco County.

Weston O. Smith, from Alameda County.

William E. Styan, from San Francisco County.

William F. Wagner, from Los Angeles County.

John Zieg, from San Francisco County.

In Memoriam

Davidson, Anstruther. Died in Los Angeles, April 3, 1923, age 72 years. Graduate of University of Glasgow, Scotland, 1881. Licensed in California, 1889. Doctor Davidson was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.



Kempff, Louis Adolph. Died March 27, 1932, age 51 years. Graduate of St. Louis University School of Medicine, Missouri, 1904. Licensed in California, 1919. Doctor Kempff was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

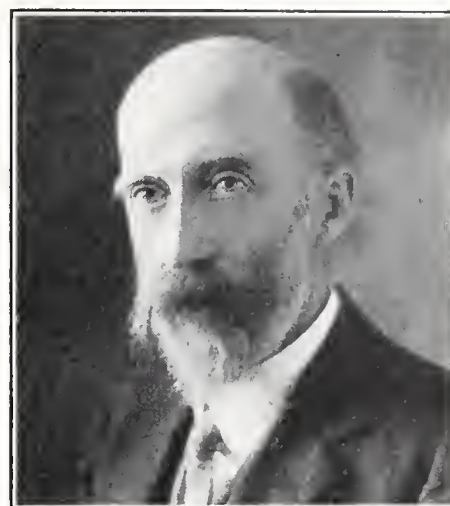


Miller, Albert Leonard. Died in Yuba City, March 22, 1932, age 61 years. Graduate of Rush Medical College, Chicago, 1896. Licensed in California, 1904. Doctor Miller was a member of the Yuba-Sutter County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.



Reed, Wallace Allison. Died in Covina, March 27, 1932, age 43 years. Graduate of University and Bellevue Hospital Medical College, New York City, 1913. Licensed in California, 1914. Doctor Reed was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

OBITUARIES



Anstruther Davidson

1860-1932

A life of usefulness and great activity was brought to a close when death took from our midst Dr. Anstruther Davidson on April 3.

Doctor Davidson was born at Coithnessshire, Scotland, February 19, 1860. He graduated in medicine from the University of Glasgow in 1881 and practiced in southern Scotland until 1889 when, following post-graduate work in Vienna under Hebra, he came to Los Angeles. During his professional career Doctor Davidson held many positions of honor and trust. He was associate professor of dermatology at the University of Southern California in 1909, and was for many years a consultant on many Los Angeles Hospital staffs. He was a fellow and former president of the Southern California Academy of Sciences, a member of the Entomological Society of Philadelphia, a member and former president of the Clan Dahi of the United States, and of the Los Angeles Dermatological societies, respectively.

He was a recognized authority in botany and entomology, and was author of "Plant Life in Los Angeles County" and "Flora of Southern California." Doctor Davidson was also well known as a contributor to many scientific journals.

During his long life of services he made a legion of friends who, together with his medical and scientific associates, will miss this scholarly and kindly gentleman.

CHRIS R. HALLORAN, M. D.



Ernest Gustave Tillmanns

1881-1932

Dr. Ernest G. Tillmanns was born June 23, 1881, at Haan, Germany. He was a brilliant student in foreign languages at Bielefeld Gymnasium, and graduated as the youngest student from Elmhurst and Eden and McCormick Theological colleges in this country. Doctor Tillmanns spent several years in the ministry in this country and in 1904 went as a missionary to India. There in the Central Provinces, he served six years, speaking the Hindu language like a native. Having charge of the Chattisgar Leper Colony, he became very efficient in the diagnosis and care of skin diseases. Because he was a fine and courageous hunter, he was at times called to villages to deliver the natives from a man-eating tiger or leopard.

He returned to our country in 1910 and took up the study of medicine at Rush Medical College, where again he was one of the best students. He had fine surgical ability, and after his internship at the Los Angeles County General Hospital (1915-1916) practiced medicine in the Imperial Valley and for the last eleven years at Los Angeles. He endeared himself

by his splendid personality to both patients and colleagues.

Having done considerable work in ophthalmology and having become interested in aviation, he took a government course for flight surgeon at Brooks Field, Texas, in 1928, and by his fine sportsman character was highly esteemed by his class and teachers. A boy he was with the boys. Returning to Los Angeles, he took up flying, had his own ship and was very proud of this art at the time, being most liberal toward his friends and brothers. He had over five hundred hours to his credit and was a very cool flyer. He was appointed examiner by the Department of Commerce and was well liked in Army circles, being appointed major a short time before his death. He was a most enthusiastic student of navigation, and in his study of astronomy he was very happy. Getting a sextant only a few days before his accident, he made careful observations of the setting sun from Palos Verde hills on January 24, and he was as proud of it as one could be.

Doctor Tillmanns was teaching a younger brother landings in his new Monocoupe on January 25, when the brother fainted or died while in control of the stick from a far advanced coronary trouble, so freezing the stick and causing a crash fatal to both.

Major Tillmanns was a true sportsman, a sincere and earnest Christian. By his death the Army lost a most hopeful strength, and his many friends in several continents a dear and supporting friend.

Of splendid physical proportions, Doctor Tillmanns was a great mountain climber, and with ease climbed every mountain in California, often carrying a sick and prostrate comrade to safety. On a mountain climb, his fine person could be seen silhouetted against the skyline far in advance of the others; now he has disappeared for a while, just over the skyline.



George W. McCoy
1871-1932

George Washington McCoy, a member of the Los Angeles and California Medical Associations, who had long occupied a prominent place among eye, ear, nose, and throat physicians, died at the California Hospital on Thursday, April 21, 1932. Some six weeks before he was taken ill, but had sufficiently recovered to return to his work. Two days later, while in his office, he suffered a relapse, was taken to the hospital and expired suddenly on Thursday morning. Death was due to a coronary lesion.

Doctor McCoy was born at Bellebrook, Ohio, January 14, 1871, graduated from the Ohio Wesleyan University where he received his master's degree in 1901. From the University of Cincinnati he received his degree of doctor of medicine as a member of the class of 1904. Internship was at the Cincinnati Hospital and at the Manhattan Eye, Ear, Nose, and Throat

Hospital. Postgraduate studies were in London and Vienna. He had practiced in Los Angeles since 1908.

At the Los Angeles County General Hospital he had been a member of the senior attending staff on the Eye Service for a goodly number of years. He was also a member of the Executive Medical Board of the California Hospital from the time of its reorganization in 1922.

Because of his genial disposition, his high professional qualifications and his sterling character he had a host of friends, both in the profession and among the laity. His death will be keenly felt.

IN MEMORIAM—GEORGE W. MCCOY

Adopted by the Los Angeles Society of Ophthalmology and Otolaryngology at its meeting on April 25.

Whereas, An All-wise Power has seen fit to take from life's tasks on earth a fellow member of the Los Angeles Society of Ophthalmology and Otolaryngology who during his years of service in our midst ever played the part of the true physician; and

Whereas, In the death of Dr. George W. McCoy in the prime of life, the medical profession, the public, his friends and family have all suffered a grievous loss; now therefore be it

Resolved, By the Los Angeles Society of Ophthalmology and Otolaryngology that the sympathy of the members of this society is extended to the bereaved family; and be it further

Resolved, That a copy of these resolutions be placed in the minutes and records of the Los Angeles Society of Ophthalmology and Otolaryngology as an expression of the high regard and esteem which the members of that society have ever held for this their friend and colleague because of his personal work and integrity, his fine expression of service to his profession and to his patients, and the honor that he brought to his profession; and be it further

Resolved, That a copy of these resolutions be sent to the bereaved family and to the official publications of the California Medical Association and the Los Angeles County Medical Society.

NEVADA STATE MEDICAL ASSOCIATION

A. C. OLMSTED, Wells.....	President
O. HOVENDEN, McGill.....	President-Elect
J. H. HASTINGS, Pioche.....	First Vice-President
E. E. HAMER, Carson City.....	Second Vice-President
HORACE J. BROWN, Reno.....	Secretary

COMPONENT COUNTY SOCIETIES

WASHOE COUNTY

The regular monthly meeting of the Washoe County Medical Society took place on the evening of April 12, in the State Building, Reno.

All officers of the society were present.

Telegrams from Senators Pittman and Oddie and Representative Samuel L. Arentz, likewise letters from the Judiciary Committee from House and Senate with reference to the Copeland Medicinal Liquor Prescription Bill were read. No other communications were presented.

Doctor Brown showed the society a specimen of *Fetal Cranioschisis*, a case of congenital fissure of the cranial vault, with brain protrusion through the same. Apparently the fetus was full term. It was sent here from Hawthorne, where delivery had taken place about three weeks previous. This rare specimen was given by Doctor Bath to Professor Frandsen of the University of Nevada to demonstrate in his teaching to the premedical students.

Discussion of the new schedule of fees by the Nevada Industrial Commission came up and after full discussion the chair appointed a committee of Doctors

M. A. Robison (chairman), Morrison, Bart Hood, Brown, Muller, and Bath to confer with a representative of the Industrial Commission and endeavor to reach an agreement over certain contested features.

Next followed a cinema on *Spinal Anesthesia*, kindly loaned by the Metz Chemical Company of San Francisco. The film was highly instructive and greatly enjoyed. The society voted their thanks to the company for the courtesy.

In view of further discussion on the Industrial Commission fee schedule, the society adjourned. On the night of April 19 the society will meet with the commission at the usual place of meeting.

THOMAS W. BATH, *Secretary*.

UTAH STATE MEDICAL ASSOCIATION

R. A. PEARSE, Brigham City.....President
F. M. McHUGH, Salt Lake City.....President-Elect
L. R. COWANS, Salt Lake City.....Secretary
J. U. GIESY, Kearns Building, Salt Lake City
.....Associate Editor for Utah

COMPONENT COUNTY SOCIETIES SALT LAKE COUNTY

On Monday evening, March 14, a meeting of the Salt Lake County Medical Society was held at the St. Marks Hospital. The meeting was called to order at 8:30 o'clock. There were forty-two members and four guests present.

A letter from the president of the Community Chest thanking the medical profession for its support was read.

The president then turned the meeting over to Dr. R. Jellison, president of the St. Marks Hospital staff.

Dr. Frank Spencer reported a case of "Traumatic Section of the Jejunum."

Dr. R. S. Allison reported a case of "Streptococcus Septicemia Following a Vincent's Angina Treated with Sodium Ricineolate Intravenously and Recovery." This was discussed by Dr. T. C. Gibson.

Dr. W. N. Pugh presented a case of "Infectious Arthritis and Dislocation of the Hip Joint." He also presented a case of "Bursitis of the Iliopsoas Insertion." The latter case was discussed by Dr. W. T. Ward.

* * *

A regular meeting of the Salt Lake County Medical Society was held on Monday evening, March 28, at the Newhouse Hotel. The meeting was called to order by the president at 8:05 o'clock. There were fifty-three members present.

Dr. L. N. Ossman presented a paper on "Bone Sepsis," reporting a number of cases. This was discussed by Doctors S. C. Baldwin, A. L. Huether, and E. F. Root.

Dr. W. D. Donohoe presented a paper on "The Removal of Tonsils by the General Practitioner." This paper was discussed by Doctors F. M. McHugh, E. LeCompte, J. P. Kerby, and E. F. Root.

Dr. F. M. McHugh reported for the Tuberculosis Committee. Dr. B. E. Bonar moved its adoption, seconded by Dr. S. G. Kalin, and passed without dissent.

Dr. R. T. Woolsey moved that the telephone listing page be continued. Seconded and passed.

Dr. W. R. Tyndale presented a report of interesting articles appearing in the current medical literature.

Dr. F. M. McHugh moved that the secretary send a letter to each congressman from Utah protesting against the passage of a bill pending in Congress against vivisection. Seconded by Dr. J. Z. Brown, and passed.

The following resolutions of regret were passed and ordered spread on the minutes and sent to relatives of the deceased.

IN MEMORIAM—FRANCIS SANBORN BASCOM

Whereas, Time in its inevitable march has at length brought the final hour to a respected and fruitful life, and in so closing its chapters has taken from us our friend and fellow worker, Dr. Francis Sanborn Bascom; and

Whereas, We of the Salt Lake County Medical Society, who knew him long and well, shall miss him from our ranks both as a society and as individuals; therefore be it

Resolved, That we express our regret of his passing in the form of a resolution to be spread as a permanent record upon the minutes of the society and that a copy of the same be sent over official signature to the family of the deceased.

* * *

IN MEMORIAM—J. N. ANDERSON

Whereas, In the death of our friend and comrade, Dr. J. N. Harrison, we of the Salt Lake County Medical Society have once more met the loss of one of our oldest members; and

Whereas, We who have known him so well and so long, must experience a deep feeling of regret in his future absence from our ranks; therefore be it

Resolved, That we pay a heartfelt respect to his memory in the form of a resolution to stand as a permanent record upon the minutes of our organization; while at the same time we bow our heads to the law of all flesh, which has thus in the end accorded to him that reward of all who have labored and grown weary—a peaceful and unbroken rest.

L. E. VICKO, *Secretary*.
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WEBER COUNTY

The regular meeting of the Weber County Medical Society was held March 17, at Dick's Café.

Dr. T. B. Beatty of the State Board of Health was introduced by President Badcon and discussed various phases of the relation of the physician to public health officials. He reviewed briefly his impressions of state medicine in Europe and assured the doctors that a closer coöperation between the physician and public health officials would go a long way toward preventing the introduction of this menace in our own country. He also discussed briefly the purpose of the organization of health centers, the Jones Bill which is now pending in Congress, and the necessity of reporting venereal diseases.

Dr. William D. Donohoe of Salt Lake City followed with a very interesting and instructive discussion on nasal sinus infection. He urged conservative treatment and advised surgery only as a final resort when more conservative treatment failed to cure.

WILLIAM M. MCKAY, *Secretary*.

OBITUARY

J. N. Harrison, M. D.
1860-1932

A career of almost forty years as a Salt Lake physician ended Wednesday when Dr. J. N. Harrison, seventy-two, died at a local hospital of cancer.

Doctor Harrison, well known and with a wide circle of close friends here, had been ill for about three months, but his condition did not become serious until about ten days ago.

He was born near Pittsburgh and after being graduated from the University of Michigan and completing his medical studies in Germany, first practiced in Nebraska. He came to Salt Lake nearly forty years ago, and until a short time before his death had been in active practice.

Doctor Harrison had been a member of the local Eagles Lodge No. 67 for twenty-five years and served as lodge physician for twelve years until a year ago, when he resigned the post.

MISCELLANY

Under this department are ordinarily grouped: News; Medical Economics; Correspondence; Twenty-five Years Ago column; Department of Public Health; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the twentieth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

NEWS

Coming Meetings—

American Medical Association, New Orleans, Louisiana, May 9-13, 1932, Olin West, M. D., 535 North Dearborn Street, Chicago, Illinois, secretary.

Association for the Study of Internal Secretions, New Orleans, May 9-10, 1932, F. M. Pottenger, M. D., 1930 Wilshire Boulevard, Los Angeles, secretary.

Pacific Northwest Medical Association, Spokane, Washington, June 27-29, 1932, C. W. Countryman, 280 Paulsen, Medical-Dental Building, Spokane, Washington.

Western Branch of the American Urological Association, Portland, Oregon, July 1 and 2, 1932, F. S. Dillingham, 320 Fidelity Building, Los Angeles, secretary.

Western Branch of the American Public Health Association, Denver, Colorado, June 9-11, 1932, W. P. Shepard, M. D., 600 Stockton Street, San Francisco, secretary.

American College of Physicians.—The following physicians were elected officers of the American College of Physicians at their annual session held in San Francisco April 4-8, 1932:

President, Francis M. Pottenger, M. D., Monrovia.

Vice-president, George M. Piersol, M. D., Philadelphia, Pennsylvania.

First vice-president, Maurice C. Pincoffs, M. D., Baltimore, Maryland.

Second vice-president, Charles G. Jennings, M. D., Detroit, Michigan.

Third vice-president, Noble Wiley Jones, Portland, Oregon.

Treasurer, Elmer H. Funk, M. D., Philadelphia, Pennsylvania.

Secretary, William G. Morgan, M. D., Washington, D. C.

Executive secretary, E. R. Loveland, M. D., 133 South Thirty-sixth Street, Philadelphia, Pennsylvania.

University of California Medical School.—Announcement is made that the University lecturer in the Medical School for the year 1932-33 will be Dr. W. McKim Marriott, dean and professor of pediatrics at Washington University School of Medicine, St. Louis, Missouri. Doctor Marriott will be at the Medical School early in the fall of 1932. He will conduct lectures and clinics similar to those conducted by other University lecturers.

Dr. Linn J. Boyd, professor of medicine at New York Homeopathic College, talked to students in the University of California Medical School during April, 1932. His talks covered the following subjects:

1. The Contributions of Homeopathy to Clinical Pharmacology during the Last Five Years.
2. The Pharmacologic Basis of Homeopathy.

Study of Heredity in Twins.—Professor Holmes of the University of California is directing a study of the manifestations of tuberculosis, cancer, mental defect, and insanity in twins, and especially identical twins, as a possible means of throwing light on the rôle of

heredity in causing such diseases and defects. Any information which you can give concerning twins whom you may know among patients or acquaintances who suffer from any of these afflictions will be of value in this research. Will you kindly send such information to Prof. S. J. Holmes, 4013 Life Sciences Building, University of California.

Western Branch of the American Public Health Association.—The third annual meeting of the Western Branch of the American Public Health Association will be held in Denver, Colorado, June 9, 10, and 11, 1932, immediately following the National Tuberculosis Association meeting.

The Western Branch of the American Public Health Association was organized in 1928, and with the sanction of the parent body, the American Public Health Association has increased its membership to over 1,600 during these four years. Its purposes are to offer western public health people opportunities for exchange of experience, interchange of views with our eastern colleagues, and in general to promote western public health development.

Three major items of special western importance will be included on the program at the Denver meeting: Psittacosis, now apparently endemic in native western birds of the parrot family, is to be discussed by Dr. Karl F. Meyer of the Hooper Foundation, San Francisco; reciprocal relations for the control of shellfish in Pacific ports to be discussed by the state health officers of California, Oregon, and Washington; Rocky Mountain spotted fever, with special reference to its similarity to typhus to be discussed by Dr. R. H. Riley, health officer of Maryland. Several national as well as western public health problems will be discussed by both eastern and western authorities.

The meeting is to be addressed by Dr. Louis I. Dublin, president of the American Public Health Association. The presiding officer will be Dr. E. T. Hanley, city health officer of Seattle, president of the Western Branch. Other national authorities who have accepted invitations to appear on the program are: Dr. John Ferrell, president-elect, American Public Health Association; Dr. E. L. Bishop, chairman of the Executive Board, American Public Health Association; Dr. Kendall Emerson, acting executive secretary, American Public Health Association; Dr. Taliaferro Clark, acting surgeon-general, United States Public Health Service; Dr. H. W. Hill, professor of bacteriology and nursing and of health, University of British Columbia, Vancouver; Dr. M. P. Ravenel, editor of the *Journal of the American Public Health Association*; and others.

Western Branch of the American Urological Association.—The eighth annual meeting of the Western Branch Society of the American Urological Association will be held at Portland, Oregon, July 1 and 2.

Friday, July 1, there will be a dry clinic in the morning; luncheon at the Heathman, the official hotel; in the afternoon, papers. A banquet and entertainment at the University Club will be held in the evening.

Saturday, July 2, papers in the morning; luncheon, including the ladies. In the afternoon, a motor trip up the Columbia River Highway; and in the evening, a barbecue, including the ladies, is programmed. Fishing and horseback trips will also be provided. All members of the society will be invited to attend.

Pan-American Medical Association.—More than three years ago, the Pan-American Medical Association was founded in Cuba for the purpose of promoting more intimate relations among the physicians and surgeons of the Western Hemisphere. Its object is to extend hospitality to visiting physicians and surgeons in the various countries making up the Americas. Its purpose is to develop friendship; to advance medical knowledge in the Western Hemisphere; to interchange doctors for the purpose of presenting medical courses; to hold meetings in different countries; to exchange medical literature; to disseminate information regarding scientific investigations and our common public health interests; to create an international lending library and to develop inter-American medical literature by means of official publications. The official languages of the association are Spanish, French, Portuguese, and English.

The association was founded in Cuba some three years ago and since then meetings have been held in Cuba, Panama, and Mexico City. The next annual congress will be held in the United States, either in New Orleans, Dallas, or in San Francisco. The seat of the association must be in the Western Hemisphere and the main office is located in the country in which the president of the association resides. At the present time the headquarters of the association are in Cuba, as Dr. F. M. Fernandez, its president, and Dr. J. E. Lopez-Silvero, its secretary, are both citizens of Havana, Cuba. Dr. Conrad Berins of New York is treasurer. These officers were elected in 1930 and will serve through 1933.

At the last meeting of the association held in Mexico City in July 1931, Doctors Charles P. Mathé, Ralph Soto-Hall, and Leo Eloesser were instructed to form a chapter of the American association in San Francisco. On February 1, 1932, the San Francisco chapter was formed and the following doctors, prominent in public health, in the medical departments of Stanford University and the University of California and in medical circles of the city, were chosen as its charter members to wit:

Charles Mathé, president; Ralph Soto-Hall, secretary-treasurer; E. M. Aldana, Hans Barker, Arthur Bloomfield, Philip King Brown, William Dock, Leo Eleosser, John Galloway, J. C. Geiger, William Lucas, Howard Naffziger, William Ophüls, Langley Porter, Isaac Montealegre, Consul of Nicaragua; G. J. Valenzuela, Vice-Consul of Costa Rica.

Recently new chapters have been formed in Milwaukee, Wisconsin, in Caracas, Venezuela, and in Atlanta, Georgia. Chapters are soon to be formed in Los Angeles and in Seattle. The first meeting of the association was held on March 26, 1932, in the Colonial Ballroom of the St. Francis Hotel at which Dr. T. Davis, well-known urological authority of the Crowell Urological Clinic of Greenville, South Carolina, will talk on "Transurethral Correction of Prostatic Obstruction." This subject of the endovesical method of electrically relieving prostatism in the closed bladder will be of great interest, as it has attracted considerable attention and is now being given serious consideration by the urologists and surgeons the world over.

Membership is open to the members of the San Francisco medical profession of ethical standing and ability.

Honor Conferred on Sir Henry Wellcome.—The *British Medical Journal* (London) contains the announcement that at a meeting of the Council of Royal College of Surgeons of England, Lord Moynihan, president, in the chair, the Right Hon. Lord Dawson of Penn, P. C., G. C., V. O., K. C. B., K. C. M. G., physician to His Majesty the King, and president of the Royal College of Physicians of London, and Sir Henry Wellcome, LL. D., F. S. A., founder of the Wellcome Research Institution, were elected Honorary Fellows of the Royal College of Surgeons.

The Royal College of Surgeons of England is one of the most exclusive scientific bodies in England, and the bestowal of this honor on Sir Henry Wellcome is very exceptional in that aside from members of the royal family, Sir Henry is the second person not holding a medical degree upon whom this rare distinction has been conferred, the first and only other recipient being the famous field marshal, Lord Roberts of Kandahar.

Sir Henry Wellcome is of American birth and is well known for his world-wide scientific work and extensive pioneer researches in connection with tropical diseases, including the founding of the Wellcome Tropical Research Laboratories at Khartoum, on the Upper Nile regions of the Sudan, Africa. He is also a director of the Gorgas Memorial Institute, Washington, D. C., with its Tropical Research Laboratories at Panama.

MEDICO-LEGAL

CALIFORNIA SUPERIOR COURT APPELLATE DEPARTMENT DECISION REGARDING CHIROPRACTORS

The Los Angeles *Daily Journal*, a newspaper devoted to the publication of legal decisions and notices, in its issue of March 28, 1932, under a black block letter caption, "Medical Board Has No Chiropractic Control," printed the interesting decision which is given below. It is here reprinted for its informative value to the readers of CALIFORNIA AND WESTERN MEDICINE. It is interesting as showing that in the interpretation of laws, the courts are not prone to go beyond legal precedents. If the people through initiative vote commit an error from the standpoint of the state's best policy or interests, then such error, according to the courts, must be rectified by vote of the people and not by vote of the legislature. Creating thus a situation good or bad, according to principles and results at stake. The decision was written by Associate Appellate Judge Shaw and concurred in by Presiding Appellate Judge McLucas and Associate Judge Bishop. The opinion follows:

"Chiropractors are not required to hold a license from the State Board of Medical Examiners and cannot be prosecuted under the State Medical Practice Act for misuse of the prefix 'Dr.', according to a decision just rendered by the Superior Court Appellate Department in granting a new trial in the Municipal Court to W. I. Schuster, a licensed chiropractor.

" 'Appellant being a licensed chiropractor,' said the appellate opinion, 'could not be prosecuted under the Medical Practice Act for any misuse of the prefix "Dr.", but must be prosecuted therefor under the Chiropractic Act if at all.'

"If a chiropractor is charged with advertising and holding himself out as practicing a system for the treatment of the sick and afflicted without having a license from the State Board of Medical Examiners, or in fewer words, with practicing healing arts without a license from the medical board, he may establish a defense by showing that the treatments he offered were a part of the practice of chiropractic, according to the Appellate Department.

"The defendant was charged with a misdemeanor in one count, that he violated section 17 of the Medical Practice Act in that he 'did wilfully and unlawfully (1) use the prefix "Dr." (2) advertise and hold himself out as practicing a system and mode of treating the sick and afflicted without then and there having a valid unrevoked certificate or license from the Board of Medical Examiners of the State of California so to do.'

"Associate Judge Shaw, who delivered the opinion, pointed out that the Medical Practice Act of 1913 was the sole medium for regulating the healing arts in California until 1922, when the people adopted an initiative measure, the Chiropractic Act, regulating chiropractic and setting up a State Board of Chiropractic Examiners.

"In 1929 Section 17 of the Medical Practice Act was amended to provide that persons practicing healing arts, or attempting to practice them, or advertising or holding themselves out to that end without holding a license from the Board of Medical Examiners, would be guilty of a misdemeanor. It was also provided that persons using the prefix 'Dr.', the word 'doctor' or the letters 'M. D.' indicating practice under the Medical Practice Act or any other act, without having a license from the Board of Medical Examiners, would be guilty of a misdemeanor.

"In holding these provisions do not apply to chiropractors, the Appellate Department pointed out that the Chiropractic Act regulates the use of the prefix 'Dr.' by chiropractors, requiring them to use after their names when 'Dr.' is prefixed the letters 'D. C.,' the word 'chiropractor' or other appropriate designation of their profession.

"Attention was also called to the fact that the Chiropractic Act repealed those provisions of the Medical Practice Act with which it conflicted and it was declared that the authority attempted to be set up in the 1929 amendment of the Medical Practice Act could have no bearing because, being a legislative enactment, it could not obtain as against an initiative measure such as the chiropractic law.

"The opinion was concurred in by Presiding Judge McLucas and Associate Judge Bishop."

A PLEA FOR DOCTORS

BEING A TRIBUTE FROM A LAYMAN

Many of the pamphleteers who write for the lay press of America have taken much pleasure in the last several years in pointing out the deficiencies in medical practice. The ignorance displayed in some of the said articles has been little less than pathetic. Unfortunately, a considerable amount of the stuff has been absorbed by many of the unthinking laity as legitimate and warranted criticism.

It was with keen interest, therefore, that the editor read the article below, "A Plea for Doctors," by Peter B. Kyne, which was printed as one of the feature articles in the Hearst newspapers of April 4, 1932. It is hoped that all members of the California Medical Association will give themselves the pleasure of reading Kyne's tribute to the medical profession, which follows:

"Some of my doctor friends tell me that during these dark days they aren't as busy as they used to be. People cannot afford to be sick; withering of the bank roll has denied them the joys of ill health, and those who do become ill get up out of the sickbeds promptly and start hustling a living. Surgeons are just as busy as they ever were, but neither internal medicine men nor surgeons are making the money they used to make and aren't collecting very much of what they earn. It is a rare thing for a doctor to sue one for his bill, for to a very great extent physicians are a soft-hearted, sympathetic lot, and if a patient cannot pay his bill they never bother him very much about it, or else make their fee so reasonable that none but those lost to a sense of shame will evade payment of it.

"Once I heard a very rich man scream in agony because a noted surgeon had charged him a thousand dollars for removing his appendix. Now this man knew he could afford the best and he wanted the best and got it. He would have been afraid to entrust his fat person to a doctor who would have done, perhaps, a job equally good for a hundred dollars. Yes, he wanted the best, but after he had had the best he graded it with the mediocre—as far as remuneration was concerned. He submitted to that operation, feeling perfectly secure and serene because he knew he was in unusually skillful hands and he forgot such skill and such a reputation for skill had not been acquired save by long years of apprenticeship, during which thousands of appendixes had been removed without charge. He forgot that his life was worth more to the community than that of a charity patient and he refused to pay the bill without indulging in a disgusting tirade and pleading poverty and oppression. People forget that the doctor, like the concert singer, may not adhere to one price; that the rich patient must bear the responsibility of the rich and the strong to society's general health by taking up the slack of the doctor's support where the poor and weak fail.

"The true physician has in him a Christ-like quality. He has a vast sympathy for sick people, a vast pity for the poor and the helpless. So he is imposed upon, for most human beings are alert to note quick and unstinted sympathy and are not at all averse to trading upon it. And the doctor, who knows human beings so much better than they know themselves, is, somehow, neither shocked, distressed nor made bitter by evidences of ingratitude. . . . I knew a fairly prosperous man who for years had suffered from a disgusting skin disease. A clever gastro-enterologist got hold of him, cleaned up his wretched internal mechanism and lo! the skin lesion disappeared. The patient was under daily treatment for two months and how he did scream when the doctor sent him a bill for \$250. He paid under protest, but he had his revenge. He wouldn't give his trade to such a bandit in the future, so his skin lesion returned because he neglected himself, and he started his weary round of the doctors who had failed to cure him in bygone years. It was a comfort to me to know that he never ceased to itch until he found himself entirely surrounded by German silver handles.

"Few persons realize how hard-earned is the doctor's competence, which, nine times out of ten, is surprisingly modest. He is the last relic of civilized slavery. . . . He goes to the theater, telling himself he shouldn't because Old Lady Gazookis is in the hospital and she's just the sort to whom a minor gas pain will mean a capital operation. So the doctor leaves his seat number and name at the box office and in the middle of the second act an usher comes and whispers that the doctor is wanted on the telephone. And it's Old Lady Gazookis! If a doctor is a proprietor of a half decent practice he seldom eats a meal in peace, and in his middle years, what with hastily eaten meals and broken rest and overwork he surrenders to angina pectoris, the scourge of the medical profession, and a youthful hopeful steps into his practice and goes the same route in the fullness of time.

"Doctors and army and navy officers have in them something of the same holy zeal of a monk. Their professions call for a renunciation of worldly wealth and place; they work for the joy of the job and get little thanks and much criticism for it and are never really appreciated until a grave emergency arises. I am much in favor of doctors. The only one I never liked was an army medico who got a private by the name of Kyne mixed up with another private by the name of Klein, and slipped Kyne three large beakers of Epsom salts intended for Klein. At that the poor doctor was terribly sorry and I suppose Kyne would have forgiven him if he hadn't been suffering from tropical dysentery at the time. Some sentimentalist (I suspect he was a florist) invented Mother's Day. I believe we ought to have Doctor's Day, and on that day send in our checks for all we owe our doctor in cash and try to express something of what we owe him for the things that money can never buy."

TWENTY-FIVE YEARS AGO*

EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. V, No. 5, May 1907

From some editorial notes:

Our New Rulers.—The House of Delegates, at the Del Monte meeting, elected the following officers for the ensuing year: President, George H. Evans, San Francisco; first vice-president, J. A. McKee, Sacramento; second vice-president, Jno. C. King, Banning; secretary, Philip Mills Jones, San Francisco. . . . The president has appointed on the Pure Food Committee F. C. E. Mattison, chairman, and George H. Kress, Stanley Black, R. L. Porter and W. F. Snow. The next place of meeting is to be Coronado.

. . . At the recent meeting of the State Society, the House of Delegates passed some resolutions authorizing very important undertakings. . . .

. . . Closely associated with this is the appointment of a Committee on Pure Food Control. This committee is to coöperate with similar committees to be organized in the various counties and had its origin in Los Angeles, when a committee of this sort has been working to better the milk supply. It was found easy to control the milk produced in the county, but little could be done to prevent the income of exceedingly dirty milk from adjoining counties. This is but one of the many things about which the public needs education from our profession and it is partly the work of these committees to see that the work of enlightenment is systematized and carried out. . . .

Worked Again?—When the office of a sure-thing operator of New York was raided, some few years ago, enormous quantities of letters from doctors, lawyers and parsons were found. The detective who had charge of the raid is said to have stated as his opinion that parsons and physicians were about the "easiest suckers" of all, to work. It would seem so. The state journal and the *Journal of the American Medical Association* have for some time been calling attention to specific instances of "working" the medical profession by nostrum men of sorts. . . .

* This column strives to mirror the work and aims of colleagues who bore the brunt of state society work some twenty-five years ago. It is hoped that such presentation will be of interest to both old and recent members.

Educate the Public.—The example set by two or three of our county societies should not be ignored by the others; all should make an effort to arrange meetings between the medical societies and the bar associations, ministerial associations and prominent citizens of all classes generally. Nor should such meetings ignore the commercial side of our profession. If the laity once comes to realize that to be an up-to-date physician is not an inexpensive matter, there will be a better appreciation of decent fees. A poorly paid doctor is generally not a good doctor, for he cannot keep himself supplied with current literature nor provide the required armamentarium; and every patient is entitled to and should receive the services of a good average up-to-date physician. . . .

From an Article: "Annual Address of the President" by R. F. Rooney, M. D., Auburn.—Ladies and gentlemen and members of the Medical Society of the State of California: Owing to a slight unpleasantness—duration, forty-five seconds—which occurred in San Francisco one year ago, followed by the disastrous fire, it again becomes my pleasant duty to preside over this august body, in annual session assembled. I am an accident in this chair at this meeting, holding the unique position of president for the second consecutive year. This was neither your fault nor mine, so no comment is needed—merely remarking that it was due to "circumstances over which we had no control." Under these conditions, being the "accident" that I am, I do not intend to inflict upon you a long address. But you need not sigh with satisfaction at this statement, as I cannot let you escape entirely free.

I feel it incumbent upon me at this time to enter a little into detail concerning the catastrophe which so quickly ended our meeting one year ago, and to note such things as may prove of interest to you. . . .

On the 17th day of April, one year ago, we met in the city of San Francisco, in the Young Men's Christian Association Hall, for our annual session. . . . We anticipated a rich treat, both scientifically and socially. . . .

We retired to our beds in peace and quiet, and at 5:15 the next morning were shaken out of our beds, and our belief in the stability of our Mother Earth, by the great earthquake which directly and indirectly wrought such ruin and havoc in San Francisco. . . .

And here, as president of the Medical Society of the State of California, and on behalf of its members, I wish to record my deep gratitude to all our medical brethren, wherever they may dwell, who stretched out helping hands to the unfortunate of our brethren in the city of San Francisco at their time of need. Thanks to this timely aid and their own pluck, nearly every medical man in the city is upon his feet again.

From an Article on "Thirty-seventh Annual Meeting of the Medical Society of the State of California—Minutes of the House of Delegates."—The House of Delegates was called to order April 16, 1907, 8:45 p. m., by the president, Dr. R. F. Rooney. . . .

Report of Executive Committee

(6) *Medical Register.*—Recommends that, for the present, the Register be issued as a supplement to the journal and of the same size and form, at the usual time of publication. (On motion this section was adopted as read.) . . .

Report of the Council

Mr. President and Delegates: The loss to the Society by the fire of last April was very serious, exceeding \$3000. The actual financial loss, however, was by no means the most serious, as all of the records of the Society, with the exception of the minutes of the Council and the account books, contracts and vouchers, were destroyed. Up to the present time these

records have been but partly re-established, as the expense of reconstructing the card file of physicians is one that the Council has not felt that the Society could yet afford. The work should be undertaken at the earliest possible time.

Donations from Los Angeles, \$913; King County, Washington, \$106, and Marin County, \$25, were received by the Council for the State Society, and the thanks of the Council were extended to the donors. This assistance aided very materially in carrying on the work of the Society until the end of the year, when the income for 1907 began to come in.

In March, after the passage and approval of the new law governing the practice of medicine in this state, and the State Board of Medical Examiners requested the Council to designate the ten nominees from which list the governor was to appoint five to act upon the Board of Medical Examiners. . . .

Organization.—Probably the most valuable work which has ever been undertaken by our State Society is the active organization of the physicians in our state. . . .

Your Council believes most thoroughly that if this line of work be continued, if some member of this Society visit all the county societies in the state where public meetings may be arranged and where questions of vital public interest may be presented, not alone to physicians, but to prominent citizens, a vastly different feeling toward our profession will be brought about, and that our efforts in securing public health legislation and improved sanitary conditions will be greatly aided. Nor is this work of benefit to the public alone. . . .

From an Article on "A Report of the First Two Hundred Confinements at the San Francisco Maternity," by Alfred Baker Spalding, M. D., San Francisco.—Before the opening of the San Francisco Maternity, the medical students of San Francisco received an incomplete training in practical obstetrics, that important branch of medicine which so often forms the basis of their future practice. . . .

From an Article on "A Case of Poisoning by Small Doses of Atropin," by Henry Walter Gibbons, M. D., San Francisco.—Cases of poisoning by atropin are not very uncommon; but, as there are several points of interest in the following case, it might be of interest to report it.

Board of Examiners.—The governor has appointed the following as members of the State Board of Medical Examiners: Regulars, Doctors Cochran, Reinhardt, Mattison, James and Pope; Eclectics, Dougall and Mason; Homeopaths, Barnard and Tisdale; Osteopaths, Tasker and Sisson.

DEPARTMENT OF PUBLIC HEALTH

By GILES S. PORTER, M. D.
Director

Rabies Situation Becomes More Serious.—During the past few weeks rabies has become an important problem in several communities of California, chiefly Fresno, Merced, Tulare, Contra Costa and Imperial counties. The disease continues to be an acute problem in southern California counties, where it has maintained a stronghold for several years. Acute outbreaks in Fresno, Imperial, Contra Costa, Merced and Tulare counties during the past few weeks, however, have made the establishment of intensive control measures necessary in order that the spread of the disease may be checked. Since the touring season

is just beginning, it is highly important that stray dogs everywhere in California be placed in restraint. With the movement of dogs from place to place, that always occurs during the touring season of the year, there is imminent danger that the disease may be introduced into communities which have been relatively free of the disease for long periods of time.

In those counties where outbreaks of rabies have occurred suddenly within the past few weeks, Dr. Giles S. Porter, Director of the State Department of Public Health, has instructed the health officers concerned to proceed immediately under Section 13, Rule 2, of the Public Health Act, taking such measures as may be necessary to bring the disease under control. In Merced County, where a human death from rabies occurred on March 3, regulations were placed in effect beginning March 12, 1932.

San Diego Food Handlers to Be Examined.—The City Council of San Diego on March 16 adopted an ordinance by which physical examination of all persons engaged in purveying foodstuffs to the general public is made mandatory. This measure prescribes sanitary methods of handling foodstuffs and provides penalties for failure to cooperate in safeguarding the public health. Pasadena has enforced a similar ordinance for many years.

Prevention and Control of Venereal Diseases.—Slightly more than 250,000 cases of syphilis and more than 150,000 cases of gonorrhea were reported to the United States Public Health Service by the health officers of forty-three states during the last fiscal year. The Surgeon General states that these diseases, as a class, continued to exceed the number of cases reported during the year of any other single communicable disease, with the exception of measles. An increasing number of requests is received for infected mosquitoes to be used in the malaria treatment of general paralysis of the insane. This method of treatment is now generally considered the most effective known treatment for this disease. Further studies of the treatment of paresis through inoculation of malaria are being undertaken with various institutions where this method of treatment is used. Increasing importance is being attached to the early diagnosis and treatment of syphilis. The possibility of extending to rural and remote districts the advantage to be derived from early diagnosis by means of microscopic examination has been carefully studied and a method for providing such service has already been put into operation by at least one state health department. The importance of venereal disease control cannot be denied and the increased efficiency in securing reports of cases would indicate that definite control measures are being applied more widely than heretofore.

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA

By CHARLES B. PINKHAM, M. D.
Secretary

Results of the Los Angeles, February, 1932, Examination

The Board of Medical Examiners of the State of California has reported results of the written examination held in Los Angeles, February 1 to 4, 1932. The examination covered nine subjects, and included ninety questions for physician and surgeon applicants. An average of 75 per cent is required to pass. An allowance of one per cent added to the general average is allowed by the Medical Practice Act for each year of medical practice under a license granted elsewhere than in California, provided the applicant has not fallen below 60 per cent in more than one subject.

The greater number of examinees were graduates of extra-state medical schools, including Canada, Germany, Austria, Roumania, and Russia.

Eighty-four per cent of the graduates of medical schools passed the examination.

The following is a list of the successful applicants for licenses as M. D. physicians and surgeons:

Samuel Donald Aiken, University of Nebraska, 1930.
Elam De Mar Anderson, Northwestern, 1931.
Franklin I. Ball, University of Oregon, 1931.
Louis Clive Bennett, University of Iowa, 1931.
Harry H. Blond, McGill University, 1931.
Potter Bowman, Ludwig-Maximilian's University, Munich, Germany, 1931.
Robert Stultz Brua, Washington University, 1931.
George Treble Burke, McGill University, 1931.
Tenero Danny Caruso, St. Louis University, 1931.
Clarence Phelps Custer, University of Colorado, 1929.
Jesse Derickson Cook, Rush, 1913.
Abbey Max Dodd, Baylor, 1930.
Daniel Snell Egbert, University of Nebraska, 1931.
Oscar Melville Elkins, University of Wisconsin, 1930.
Dwight Hair Findley, University of Oregon, 1931.
William Porter Forcade, University of Nebraska, 1930.
John Anton Gocke, St. Louis University, 1931.
Gilbert Otto Gronhovd, Rush, 1931.
Joseph Joshua Jacobs, Temple University, 1931.
Evelyn Ross Jenney, Northwestern, 1931.
Irving Louis Josephs, Yale, 1930.
Edwin Frank Kehr, Johns Hopkins, 1930.
Irving Willmer Kellogg, College of Medical Evangelists, 1931.
George C. Kelso, University of Minnesota, 1931.
Isaac Newton Kendall, Northwestern, 1930.
John Thomas Klausner, Northwestern, 1931.
George Landegger, University of Vienna, Austria, 1926.
Emmert Carl Lentz, Ohio State University, 1931.
Benjamin Maurice Lieberman, Tulane, 1931.
James Vernon Luck, St. Louis University, 1931.
Charlotte Elizabeth Mahaffy, University of Alberta, Canada, 1931.
Donald Knox Matthews, University of Cincinnati, 1931.
Benjamin Franklin Miller, University of Tennessee, 1931.
Haig Mitchell, Washington University, 1929.
James Wilber Moreland, University of Illinois, 1931.
Justin Wallace Neighbor, University of Michigan, 1930.
Henry Roger Nesburn, Tufts, 1931.
Edward Choate Pallette, Harvard, 1929.
Seymour Joseph Rosenberg, George Washington University, 1931.
Carl Oliver Rydholm, Northwestern, 1931.
Hannibal Cecil Shepherd, College of Medical Evangelists, 1931.
Karl Leopold Sicherman, University of Michigan, 1931.
Edith G. Slipson, M. D., University of Michigan, 1931.
Charles Fay Steiss, St. Louis University, 1931.
Burr Jessell Van Doren, Northwestern, 1931.
Karl Otto Von Hagen, Northwestern, 1931.
James I. Wargin, Rush, 1930.
Llewellyn E. Watke, Creighton, 1931.
Thad John Whalen, St. Louis University, 1931.
Clarence Harold White, University of Iowa, 1931.
Robert Goodwin Wilbur, University of Oregon, 1931.
Isaac Edward Wolfson, University of Cincinnati, 1931.
Leonard Dexter Wood, Columbia University College of Physicians and Surgeons, 1931.
Boris Zemsky, University of Cincinnati, 1931.

The following colleges were represented:

College	PASSED	Year of Graduation	Per Cent
Baylor	1930	82	6/9
College of Medical Evangelists.....	1931	81	4/9, 77 3/9
Columbia University College of Physicians and Surgeons.....	1931	79	2/9
Creighton	1931	75	1/9
George Washington University.....	1931	86	8/9
Harvard	1929	77	6/9
Johns Hopkins	1930	83	7/9
Ludwig-Maximilian's University, Munich, Germany	1931	75	1/9
McGill University Faculty of Medicine, Canada	1931	89	5/9, 84
Northwestern	1930	80	7/9
	1931	82	5/9, 83 5/9
		82	3/9, 81 4/9
		86	6/9, 77 5/9
Ohio State University.....	1931	83	6/9
Rush	1913	75	7/9, 12% yrs. practice
			=87 7/9
	1930	82	3/9
	1931	83	3/9
St. Louis University.....	1931	79	3/9, 76 3/9
		86,	83 4/9, 83 8/9
Temple University.....	1931	77	2/9
Tufts	1931	82	6/9
Tulane	1931	85	4/9
University of Alberta, Canada.....	1931	82	2/9
University of Cincinnati.....	1931	85	1/9, 81 2/9
			85 8/9

College	Year of Graduation	Per Cent
University of Colorado.....	1929	79 5/9
University of Illinois.....	1931	82 8/9
University of Iowa.....	1931	81 3/9, 85 3/9
University of Michigan.....	1930	84 3/9
	1931	88, 84 2/9
University of Minnesota.....	1931	81 5/9
University of Nebraska.....	1930	82 7/9, 87 3/9
	1931	84 5/9
University of Oregon.....	1931	82 8/9, 79 2/9
		84 7/9
University of Tennessee.....	1931	85 4/9
University of Vienna, Austria.....	1926	75 7/9
University of Wisconsin.....	1930	81 6/9
Washington University.....	1929	76 6/9
	1931	84 7/9
Yale	1930	84 8/9
FAILED		
Boston University.....	1931	71
Loyola University.....	1925	65 5/9
Psycho-Neurological Institute Medical College, Petrograd, Russia.....	1917	5 1/9
University of Bucarest School of Medicine, Roumania.....	1921	61 6/9
University of Illinois.....	1931	70
University of Iowa.....	1930	74 6/9

News Items, May 1932

A recent letter received from the Texas Board of Medical Examiners related that as a result of the pamphlet written by the secretary of the California Board of Medical Examiners, entitled "Eyesight Swindlers," several of this ilk had been arrested in that state. The letter further stated that Frank W. Faircloth (convicted in Fresno in 1926 as an eyesight swindler and fined \$600) was recently arrested in Texas. He was then returned to California by extradition. The letter also requested the secretary of the California Board to send to the Texas Board the exhibit displayed by the California Board at the 1931 State Fair, so that said exhibit might be displayed at the annual meeting of the Texas Medical Association to be held in Waco May 4 to 6, inclusive (Former entries CALIFORNIA AND WESTERN MEDICINE, February and March, 1926; September, 1930).

"Details of the purported bunko eye doctor game, which has interested the State Board of Medical Examiners for some time, were related in connection with an extradition approved by the governor's office today, for the return of Frank W. Faircloth from Houston, Texas, to Los Angeles, to answer grand theft charges. The extradition was granted on the strength of an affidavit filed by Anna C. Wellensick, who operates a ranch near Covina. She stated two men, introducing themselves as 'Doctor Warrington' and 'Doctor Young' visited her home February 4, 1930, and convinced her they could improve her sight with some medicine they dropped into her eyes and with the aid of a special 'radium belt' she did not receive. She said she drew \$1200 from the bank and gave it to the 'doctors' with a \$1000 bond after their treatment. She stated the men disappeared when she complained her sight had not been improved. She identified Faircloth as 'Doctor Young'" (Los Angeles Times, April 8, 1932).

A news item published in the San Francisco Examiner of April 19, 1932, relates that the Hudson County (New Jersey) Medical Society started publication of various advertisements for the purpose of protecting the public against the practice of irresponsible and unscrupulous practitioners of the healing art. The first contains the names of all of the society's 450 members, listed alphabetically and by municipalities. Subsequent articles will explain some of the services of the society.

"The removal of the entire State Board of Chiropractic Examiners on the ground all of the members lack the educational requirements to practice their profession in California is asked in *quo warranto* proceedings filed in Los Angeles today by Attorney-General U. S. Webb on complaint of Calvin E. Miller, a taxpayer . . ." (Sacramento Bee, April 4, 1932.)

"Payment of a \$1100 fine today saved Dr. William E. Glaeser, San Francisco physician, from a year in jail. Doctor Glaeser had pleaded guilty to a charge of violation of the Veterans' Compensation Act before Judge A. F. St. Sure, and a plea of leniency had been made for him by United States Attorney George Hatfield, who stated that the doctor had assisted the government in trapping several other men in the case. Despite this, the Judge sentenced the doctor to a fine of \$1000 and a year in jail. Later the Judge announced that if the doctor would pay \$1100, the amount obtained by the veteran in the case, he would suspend the jail sentence. Shortly after this the fine was paid and the doctor released from custody. 'I cannot make light of this case,' the Judge declared in passing sentence. 'This seems to be becoming a far-flung racket. It was said the doctor signed this examination blank to aid a friend. Would the doctor rob a bank to help a friend? This was robbing the government. The veteran in the case might have obtained \$10,000 he was not entitled to'" (San Francisco Call-Bulletin, April 17, 1932).

"Two East Bay doctors were each sent to the county jail for one year by Federal Judge Louderback when their probation pleas failed after they had pleaded guilty to veterans' frauds. The defendants were Dr. F. H. Van Tassell, fifty-three, 5640 Ocean View Drive, and Dr. A. H. Staples, fifty-eight, 5423 Grove Street, both of Oakland. The charges involved making false affidavits of examination of Livermore hospital patients applying for disability compensation. Congress passed a law that veterans developing tuberculosis in 1925 or prior years could procure compensation. The doctors examined several veterans in 1927, but made affidavit that they made the examinations in 1925. Federal authorities say the doctors received from \$100 to \$150 for the affidavits and that a small 'affidavit ring' was in operation. Several minor defendants are to appear for sentence next month. Probation Officer Charles Upton recommended against leniency because both doctors have a record of narcotic prescription irregularities, his report shows" (San Francisco Examiner, March 27, 1932).

"Five physicians and thirteen World War veterans were charged today with conspiracy to violate the Veterans' Compensation Act, according to information filed in Federal Judge Harold Louderback's court. Judge Louderback fixed bail at \$500 each, except in the case of Dr. William Glaeser of 196 Guerrero Street, San Francisco, whose bail was placed at \$1000. The physicians indicted included Dr. George M. Gardner; Dr. J. O. Arnout and Dr. J. Coleman Browne of Stockton; and Dr. Edward Purcell of 532 Fifteenth Street, Oakland. . . . The complaints alleged that the physicians falsely signed affidavits that the veterans contracted tuberculosis prior to 1925. The physicians actually did not examine the veterans until 1928 and 1929, according to Chief Deputy United States Attorney I. M. Peckham" (San Francisco Call-Bulletin, April 5, 1932).

"Disposal of charges against doctors and others named in an indictment for the illicit use of whisky prescriptions involving Harry 'Hardhat' Allen, was completed today when Federal Judge Frank H. Kerrigan imposed a \$50 fine against Dr. Gregory Isakson" (San Francisco News, April 4, 1932.)

"Reversing a former ruling, Attorney-General U. S. Webb today decided chiropractors may sign death certificates without first obtaining approval of a county officer or a doctor of medicine." (Martinez Herald, March 30, 1932.)

"Changing his plea from not guilty to guilty, Dewey Conway, arrested with his father, W. J. Conway (now

deceased), on a charge of practicing medicine without a license, was fined \$200 by Justice of the Peace L. E. Newton, Tuesday, at Chico . . ." (*Orland Register*, March 18, 1932).

"A request for issuance of a duplicate medical license to a doctor who died two years ago was under investigation by the State Board of Medical Examiners yesterday. . . . The request for a duplicate license came in a telegram delivered on March 15. Signed 'Dr. J. C. Gaxiola,' it was asserted that the doctor's original certificate had been burned and asked for a new one. It offered to pay two years' delinquent registration fees. Dr. C. B. Pinkham, secretary of the board, immediately began an investigation. He said an investigator went to the address, 708 Parkman Avenue, Hollywood. He found Count Von Hapsburg there. The Count denied all knowledge of the telegram and asserted that a man he knew as Doctor Gaxiola had been living with him, but had gone to Mexico recently" (*San Francisco Examiner*, March 26, 1932).

A certificate found hanging on the walls of a licensed chiropractor, recently charged with violation of the Medical Practice Act, certified that said chiropractor had "attended Black's College of Anatomical Science," the certificate being dated Fort Wayne, Indiana, June 8, 1927, signed "M. J. Black, M. D., D. C., etc." The authorities of the State of Indiana report that after a thorough investigation they fail to find anyone by the name of M. J. Black, M. D., or any such institution as "Black's College of Anatomical Science," as ever having existed at Fort Wayne, Indiana. The chiropractor in question stated he attended this course of lectures in San Diego. This is a fair sample of the value of many diplomas, certificates, etc., claimed by those whose newspaper advertising shows various alleged degrees appended to their names.

Dr. Charles J. Dean, said to be owner of the Dean Colon and Rectal Clinic, Kearney and Market streets, San Francisco, as well as clinics in other Pacific Coast cities, has been cited to appear before the Board of Medical Examiners in San Francisco, July 12, 1932, to show cause why his license should not be revoked, based upon his conviction in Portland, Oregon, 1930, "of violating the National Bankruptcy Act." He is now said to be an inmate of the federal penitentiary at McNeil Island.

According to reports, Stanley Kimbro, found guilty in the Los Angeles Municipal Court of a charge of violation of the Medical Practice Act, was on March 9 denied a new trial and sentenced to serve seventy-five days in the city jail or pay a fine of \$150. Oral notice of appeal was filed.

Attention of the Board of Medical Examiners has recently been called to an advertisement appearing in a Los Angeles daily paper of March 27, 1932, noting that the "National University of Kiropathic Physicians and Surgeons," 1126 West Vermont Avenue, will give courses in chiropractic and chiropody to nurses, beauty operators, masseurs, optometrists, and barbers. According to reports, this "university" is operated by J. C. Cowle, mentioned in "News Items" of July and September, 1929; also, October, 1931.

Reports relate that E. O. Tilbourne in the Justice Court of Pasadena on March 17, 1932, pleaded guilty to a charge of violation of the Medical Practice Act and was sentenced to serve 180 days in the county jail, sentence being suspended for one year on condition that he no further violate the provisions of the Medical Practice Act. (Former entry, "News Items," February, March, and July, 1927.)

Allen P. King, licensed chiropractor of San Luis Obispo, is reported as having pleaded guilty on March 23, 1932, to a charge of violation of the Medical Practice Act and was sentenced to pay a fine of \$50, the sentence being suspended on condition that he change his advertising.

Rheumatic Heart Disease.—At a recent meeting of the New England Heart Association at the Boston Medical Library, rheumatic heart disease was the subject for discussion. It was pointed out that the nature of the rheumatic process is still obscure, that the clinical recognition of an active rheumatic infection is difficult in many cases, and that the treatment of such infection when it is recognized is unsatisfactory. There was also a complaint expressed that we know little if any more about the disease than was known forty years ago and that a mere change of terminology and nomenclature such as has occurred does not indicate an advance in our knowledge. These are indeed challenges that demand our consideration and action.

A more careful analysis of the subject shows, however, that advances have been made, in the last decade in particular. Vague and general statements published many years ago may now be confirmed or discarded, in part or in whole, as the result of recent more trustworthy and detailed statistical studies; and gradually new facts are being discovered.

Among the newer or more clearly defined knowledge of the rheumatic infection are the following facts or concepts: (1) acute valvular disease may insidiously occur, frequently without any joint symptoms whatsoever, but in just the same form as that found with acute polyarthritis: such endocarditis has been much more frequently overlooked in the past than it is today; (2) there has been a modification of the character of the rheumatic infection during the last generation, in part probably because of the frequent and world-wide use of antirheumatic drugs such as the salicylates; (3) there is a definite relationship between upper respiratory infections, especially with the hemolytic streptococcus, and the occurrence or recurrence of rheumatic endocarditis; years ago the tonsils were almost the sole focus of attention in this respect; (4) climatic conditions are of great importance with respect to the incidence of the rheumatic infection and to the protection of a rheumatic subject against recurrent infection, a tropical climate being strongly protective; this had been hinted at years ago, but not so clearly shown as now; (5) there is a very distinct tendency for the rheumatic infection and rheumatic heart disease to occur in several members of the same family as proved by several analyses in the past ten years, which suggests among other things contagious and predisposing elements; (6) the manifestations of the rheumatic infection are no longer considered to be limited to the heart, pericardium, pleura, joints, and skin, but are known to be widespread throughout the body, even involving arteries, lungs, and peritoneum; and (7) there is more and more evidence that the involvement of the heart and other tissues of the body in the rheumatic infection is an allergic phenomenon and not a response to direct bacterial invasion.

Most important of all, we are no longer content with our lack of knowledge about rheumatism, which has been largely the *laissez faire* attitude in the past, but recognizing this very lack of knowledge, we have pledged ourselves to concentrated study of the subject until we know a great deal more. The recent emphasis on the etiologic diagnosis of cardiovascular disease has been a great stimulus, and with such endeavors as those planned and in progress at the House of the Good Samaritan here in Boston, those of Swift and Coburn in New York, of Paul in New Haven, and of others elsewhere, we can look forward hopefully to the future, expecting that forty years from now our successors may look back to this as a fruitful era in the study of the rheumatic infection and of rheumatic heart disease, which have been such important unsolved medical problems in New England for generations. — *New England Journal of Medicine*, March 3, 1932.

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WHAT THE MEDICAL PROFESSION CAN DO TO DIMINISH THE MORTALITY FROM CANCER*

By ROBERT B. GREENOUGH, M. D.
Boston, Massachusetts

THE selection of so discouraging a disease as cancer as a subject on which to speak before your society indicates a state of mind on the part of the speaker which appears to reflect little of the pleasure and appreciation I feel at receiving the honor of your invitation to attend this meeting of the California Medical Association. It is in the hope, however, that I may succeed in dispelling some of the pessimism which everywhere attends this subject that I venture to offer to you these reflections upon cancer in general, and in particular upon the responsibilities of the medical profession in regard to this disease.

INCREASE IN THE DEATH RATE OF CANCER

No medical audience needs any argument to persuade them that the situation in which we find ourselves today, in relation to the diagnosis and treatment of cancer in its many situations, and to its steadily increasing death rate all over the world, is a critical one. Where we see the death rate of tuberculosis diminishing year by year and that of cancer increasing in almost equal measure, we must appreciate the inefficiency of our present methods of attack upon the cancer problem. In the United States registration area cancer deaths increase almost uniformly two per cent a year, and have advanced from 63 to 96 per 100,000, and from sixth to second in the mortality list since 1900.

No explanation of this fact, by reference to more accurate diagnosis or to the attainment of a greater proportion of the population to the cancer age, diminishes in any way the significance of the fact that year by year more and more of our population die of cancer. That is the fact which we must face, and it behooves us as members of that profession which has accepted the responsibility of safeguarding and protecting the health of the community, to consider seriously what we

are going to do about it! Shall we sit by with idle hands and await the problematic discovery of some universal remedial agent for cancer by one of the many institutions devoted to cancer research, or shall we admit that cancer differs so markedly from those other diseases for which already successful methods of cure have been discovered that it is well within the range of possibility that there is not one cause but perhaps a multitude of causes for cancer. Should this be so a "cure" for cancer in the form of a single remedial agent or method is scarcely to be expected. Under these conditions our attack upon the disease must be made by the mobilization of a whole army of different agencies, many of which we now possess, but all of which may be made much more effective than they are as we employ them today.

The metaphor of "mobilization of an army" in the fight against cancer is not perhaps too remote to be justified in this connection if we stop to consider the resources which we are in a position to bring to bear in this fight today.

RESOURCES IN THE FIGHT AGAINST CANCER

First and foremost of these resources we must place the knowledge we have so laboriously gained about cancer. While the germs of this knowledge date back to the earliest medical writings of history, accurate knowledge of the disease made its beginnings with cellular pathology, under Virchow, in the latter half of the nineteenth century. It is only in the past twenty-five years, however, that many of the popular misconceptions in regard to cancer have been dispelled, such as the theory that it is a humoral or blood disease, that it is due to parasitic organisms, or that it is of necessity a fatal disease. It is safe to say that the last twenty-five years have added to our knowledge more facts than had been accumulated in all the centuries before, and today this knowledge is increasing by leaps and bounds. Many of the best minds in the many different fields of science which touch upon this subject are engaged today in productive and promising laboratory and clinical investigations in cancer, and it will soon be possible to say, if indeed it cannot already be said, that we know more facts about cancer in man and in animals than we do about a great many other diseases for which we have remedial agents which are effective for the control of the disease.

* This guest speaker paper read before the general meeting of the California Medical Association, at the sixty-first annual session, Pasadena, May 2-5, 1932.

THE "CAUSE" OF CANCER

It is, of course, true that we are unable to say that we know the "cause" of cancer. In the diseases of parasitic or metabolic or physiologic origin, the discovery of the cause of the disease has been an essential condition to our understanding of its nature and to the development of our methods for its control. With cancer, however, it is a different story. Cancer is a disease which may occur in any one of a multitude of different portions of the human or animal body, and we have good reason to believe that it may be brought into existence by any one of a number of different agents.

To illustrate this aspect of the situation let me state the conception of the disease cancer which has gradually come into being in my own mind, and doubtless into the minds of many others who have been interested in this subject. I make this a personal matter, however, solely to avoid committing anyone else to a statement which may well require revision in the days to come, when we have acquired further knowledge than we now possess. My own concept, then, is as follows: Cancer is a disease in man and animals in which the essential characteristic is a change of manner of growth of a group of cells in the body, of such a nature that they show an increased rapidity of cell division, combined with a loss of differentiation for such function as those same cells normally exhibit in the body economy. Combined with these changes is an alteration of the normal tissue relations which maintain the anatomical integrity of the different cellular components of the body, with the result that the cells which compose the malignant tumor invade the other tissues in their immediate vicinity, and may be carried through the lymphatics or the blood vessels or otherwise to more distant regions, where they develop as new colonies of cancer cells or metastases.

While it is true that certain highly malignant tumors do appear to develop in the embryonal "rests" to which Cohnheim attributed the development of cancer, the importance of this phenomenon has been entirely overshadowed in more recent times by the conception of the part that so-called "chronic irritation" plays in the causation of cancer. It is an extraordinary fact, and one that is even yet not so widely appreciated as it should be, that cancer can be produced accidentally in man and intentionally in laboratory animals by three such different methods as by the exposure of the tissues to the long-continued irritative effects of chemical agents (tar), physical agents (x-ray) and biologic products (bilharzia, cat-tape-worm). The one common factor in these three different forms of carcinogenic agent is that of prolonged non-lethal damage and of stimulation of the reparative processes of nature. In man the chronic irritative lesions of the skin which we see in tar, pitch, and paraffin workers, or on the scrotum of the now almost obsolete chimney sweep, are characterized by keratoses and thickenings of the skin and by the formation of benign

warty growths, which may last for perhaps ten to fifteen years before cancer actually develops. In animals the experiment is accomplished more rapidly—say in weeks or months, but in a time interval which corresponds closely, so far as the life span of the animal is concerned, to the ten to fifteen years in human beings.

With x-ray the story is the same, and it was the long duration of the chronic irritative and inflammatory stages of the process before cancer began that delayed so long our recognition of the dangers of continued exposure to x-rays, and brought about the sacrifice of so many valued lives among the pioneer investigators in this most valuable but hazardous field of physical and medical science.

The classical examples of the significance of biologic agents in the production of cancer are cancer of the bladder in man, as a result of infestation with bilharzia; and in animals the production of sarcoma of the liver in rats, by Wood, by their infestation with the cat-tapeworm. These two examples serve, however, to complete the picture and show the diversity of agents which may be employed to produce cancer. The significance of these facts in regard to the production of cancer by agents capable of causing chronic irritation, lies not alone in the conception which it gives us as to the cancer process as a whole. It provides also a firm and reasonable foundation for efforts looking to the prevention of cancer, a most important aspect of the entire subject which may well, in the future, be counted of almost as much significance as is the treatment of the disease itself. If by treatment we can eliminate the irritation which causes cancer, or even if only we can recognize the symptoms of such an irritant and by continued observation learn to intervene in time, with appropriate methods of treatment we can prevent cancer just as definitely as we prevent typhoid fever or smallpox by vaccination.

The importance of heredity in cancer is still under active discussion. So far as animals are concerned we must admit that inheritance can play a very significant part in the etiology of cancer. The work of Tyzzer, Maud Slye, and Clarence Little demonstrates this fact, although the question of the number of genes involved and whether cancer is a dominant or a recessive character is still a field for active controversy. Human beings, however, are neither mice nor guinea pigs, and in-breeding of such a degree as is necessary for the demonstration of cancer inheritance in mice is revolting and indeed impossible in humans. Under these circumstances we may perhaps safely say that up to the present time, with the exception of certain very rare but well recognized and peculiar tumor processes in human beings, cancer is not a matter of direct inheritance. I am ready myself, however, to believe that an inherited lack of resistance to cancer may indeed exist in human beings, or if you prefer, we may call it a predisposition to cancer.

It may well be that the tissues of one individual, either through inheritance or from some other as yet unrecognized constitutional state, are more readily awakened to the peculiar form of unlimited growth which we call cancer than are those of other persons. Evidence of something of this sort is afforded by two facts: first, that all human beings and all animals exposed to chronic irritation, such as that of tar or x-ray, do not develop cancer at the same time; some are more susceptible than others. The second observation has to do with the occurrence of multiple cancer in the same individual. We have all seen patients cured of one form of cancer, only to develop primary cancer of another organ, and instances of threefold or even fourfold occurrence of cancer are recorded. Under these circumstances it seems only reasonable to concede that in human beings inheritance may well carry a reduced resistance to cancer. The individual so afflicted, however, should be able to protect himself and overcome this possible handicap by learning the symptoms which are in any way suggestive of cancer, and by seeking competent advice immediately if any such symptoms do arise.

Today it is a generally accepted fact that cancer begins at some single point of origin and extends from that spot by infiltration of the adjacent tissues or through the lymphatics and the blood vessels and occasionally by implantation from one to another surface of the body cavities. We know that certain tumors have sites of predilection for their metastases, such as the extension of hypernephroma or cancer of the breast, thyroid, and prostate to the bony skeleton or that of melanotic sarcoma of the eye to the liver, or of osteogenic sarcoma to the lung. We know that as a rule it is only the development of metastases in some internal organ which finally impedes a vital function that cancer causes death, and it is on this account that it is so difficult to foretell the life duration of even an advanced case of cancer.

RÔLE OF THE PATHOLOGIST IN THE STUDY OF CANCER

The study of cancer by the pathologist in the laboratory and in the autopsy room has been, of course, the essential foundation of our knowledge of this disease. It is by the facts there gained that the different forms of cancer are identified and classified, and by this means that our knowledge of its course has been established. For many years it has been customary to recognize in the laboratory tumors which by their microscopic characteristics show evidence of extreme rapidity of growth. v. Hansemann's term "anaplasia" was indicative of these characters, and denoted an increased rapidity of growth, with a corresponding loss of differentiation for function, so that in the tumors of extreme malignancy all means of identification of the tissue of origin may be lost, and carcinoma be mistaken for sarcoma, or vice versa. The application of these facts to the clinical study of tumors, however, owes its origin to A. C. Broders of the Mayo Clinic, who was the

first to attempt the histological grading of a series of cases of cancer of the lip, and check these findings with the known clinical results of treatment. Since that time—now only eleven years ago—the histological grading of the malignancy of tumors has been widely accepted, and today a pathological report which states merely that the tissue examined is cancer is, in many clinics, considered quite incomplete unless an attempt is also made to evaluate the degree of malignancy the tumor shows.

There should be no misapprehension, however, about this matter—a tumor of low-grade malignancy is perfectly capable of causing the death of the patient, otherwise it would not be cancer—and a tumor of high histological malignancy may well be cured, if only it is discovered and removed or destroyed before it has extended to the surrounding parts. In the long run, however, more tumors of low malignancy are cured and less of the higher grades. In fact, perhaps the best example of the significance of grading is obtained when we consider the results of treatment in comparison with the temporal duration of the disease. Both in cases of cancer of the breast and of cancer of the mouth a study of end-results not infrequently shows the apparent paradox of a larger percentage of cures in those cases which show the longest duration in months. It is only by recognizing the significance of the varying degrees of malignancy that we can understand that a low-grade tumor of, say twelve months' duration, may well be less widely extended and thus more readily cured than will be a highly malignant one of shorter duration but more rapid growth.

Another characteristic of tumors which is determined partly by histological study, but far more by clinical experience, is that of radiosensitivity. Ever since the beginnings of radiotherapy certain histological types of tumors have been recognized to be peculiarly sensitive to radiation. With the increasing knowledge derived from analyses of the results in radiated tumors, and by correlation of these facts with the histology of the tumor, a whole new chapter has been added to our knowledge by which we may now recognize those tumors which are responsive to radiation, such as lymphosarcoma or the lymphoepithelioma of Regaud, and give them radiation treatment.

On the other hand, we learn from the study of radiosensitivity that most forms of cancer of the breast—and practically all of the fibrosarcomas and osteogenic sarcomas—are so resistant to radiation that radical surgery is best employed without delay.

One further fact has been contributed to our knowledge of cancer from the study of the experimental tumors of animals, and this relates to biopsy. It is found by experiment that a clean incision into a tumor, or even the excision of a piece of the tissue for frozen section, diagnosis does not increase the rapidity of the spread of the disease, whereas massage or rough handling of a tumor while it is still *in situ* greatly increases the rapidity of its spread to other parts. This fact

is one of very great importance, for it makes possible a safe exploratory operation in any doubtful case in which the disease is so limited to its local point of origin that symptoms diagnostic of cancer are not yet apparent. While the writer would, of course, deplore the unnecessary cutting into cancer tissue where it can be avoided, the fact that methods of exploration have been devised by which this can safely be done in practically every situation, adds enormously to the possibilities of discovery and prompt and appropriate treatment of incipient cases.

Such operations, however, should be performed only when all of the necessary facilities for frozen section diagnosis and for immediate surgical or radiation treatment are available. Delay between the exploratory incision and the operation is fatal to the success of this procedure.

TREATMENT OF CANCER

The treatment of cancer today, except in the hands of individuals and institutions which are carrying on experimental methods, is dependent upon surgery or radiation or a combination of these methods. Surgery may include operations performed with the scalpel, or the cautery, or by the newer methods which employ high frequency electric currents for cutting or coagulating purposes. Radiation includes the use of x-ray and of radium. The effectiveness of surgery, and especially that of radiation treatment, has been greatly increased in the past twenty years. It is not improbable that further improvements in technique will yet be made, but as things stand today cancer is cured by surgery or by radiation only when effective treatment is given in the early and local stages of the disease. This statement, however, can be made about many other diseases for which we have specific curative methods. The advanced case of diphtheria or of tetanus dies in spite of antitoxin, and so does the advanced case of diabetes in spite of insulin. With all remedial agents the promptness with which the treatment is begun is a vital matter. In cancer, however, this factor assumes even greater importance because cancer is always a lethal disease unless effective treatment is given in the early and favorable stages of its development.

GROUP ORGANIZATION AGAINST CANCER

The resources upon which we must depend in the fight against cancer include all of the general medical resources of the country, including the entire medical profession, the state and federal public health departments, medical societies, general and special hospitals, pathological laboratories, x-ray equipment both for diagnostic and for therapeutic work, and radium and the special apparatus for its efficient application. With the material resources must go also the professional skill and experience to guide their use. Not everywhere in the country can all of the necessary equipment be made available at the present moment, but beginning in the special cancer institutes and cancer hospitals—and now not infrequently

in special tumor clinics or cancer departments of general hospitals—the needed facilities and the necessary professional skill are gradually being made available.

Already it is widely recognized that the diagnosis and treatment of cancer is too big and too intricate a problem for any one man to master. The essential principle of the cancer clinic, as advocated by the American College of Surgeons, is specialization—not of one man but of a whole group of men, whose different abilities are needed in dealing with this difficult disease. The nucleus of this group will always be the surgeon, the pathologist, and the radiotherapist, but representatives of the departments of internal medicine, and of the specialties, such as gynecology, genitourinary surgery, dermatology, the neurological surgeon and the laryngologist, are also needed. Such an organization must function as a group, and conferences for the study of patients for the determination of plans of treatment of individual cases and for the consideration of the end-results must be held at frequent intervals.

With this unduly prolonged recital of the resources in knowledge, in man power, and in equipment which we may draw upon in our campaign against cancer, let us now proceed to develop a battle plan.

A BATTLE PLAN AGAINST CANCER

Contact with the enemy must first be made by the advance guard—the public. Not a step in advance can be made in the fight against cancer until the patient consults a physician. The first important activity then must be the education of the public that they may recognize in themselves the symptoms which are suggestive of cancer, namely, any lump, or sore which is slow to heal; any change in digestive or bowel habits, or any abnormal or bloody discharge from the body cavities. Such symptoms do not by any means imply that the patient has cancer, but they are at least worthy of immediate investigation. The American Society for the Control of Cancer has concerned itself especially with this matter of public education. It provides pamphlets and leaflets for distribution to the public, and makes use of radio talks, moving pictures, lectures, articles in the magazines and in the daily press. Already we think we see in districts where these educational measures have been carried on, an increase in the public interest, a diminished dread of the disease, and, what is most important, a larger proportion of early cases seeking medical advice. Much has been done also in the way of public education by state and city health departments, by the Federal Public Health Service, and by the American College of Surgeons, but more remains to be done and that chiefly by *the medical profession*. Every practicing physician is a reliable and valued source of medical education to his own patients and to their families and friends. He has the confidence of his people, and if he tells them to look out for lumps and sores and abnormal discharges, and to waste no time in seeking advice, it counts with

them far more than a thousand leaflets or articles in the daily press. Consider this suggestion, and I venture to say that you can, each of you, think of at least one among your cancer patients where death might have been prevented if you had yourself given him this necessary information before the trouble came.

THE IMPORTANT PLACE OF PRACTICING PHYSICIANS

If the public is the advance guard, the practicing physicians of the entire country are the foot soldiers—the men in the trenches—upon whom the brunt of the battle falls; and to them must go the credit for every advance that is made against the enemy. The diagnosis of advanced cancer is unmistakable, but the diagnosis of an early local lesion frequently defies the talents of the most experienced specialist. To that extent to which we are successful in educating the public, to just that same extent do we make more difficult the task of the physician first consulted by the patient with suspicious symptoms. In the cancer clinic these doubtful diagnoses can be settled by an exploratory operation, but unless all of the resources for frozen section diagnosis and immediate treatment are available such an operation may jeopardize the patient's chances of ultimate recovery. It becomes necessary, therefore, to provide for each physician in general practice and for his patients some easily accessible consultation service at a cost within the patient's means. The distances in this country are far too great to handle this problem by concentration centers as is done in Europe. A cancer institute similar to the Memorial Hospital in New York costs in the neighborhood of \$10,000,000 for construction, equipment and maintenance. Until such sums are made available by private endowment or by governmental appropriation, some less expensive method must be devised to fill this want. This is the reason for the movement on the part of the American College of Surgeons to promote cancer clinics and diagnostic centers in general hospitals throughout the country. Already some two hundred hospitals have indicated their desire to meet the minimum standards set up by the College, and it is not unreasonable to suppose that a material increase in consultative cancer service will soon be made available to the physicians practicing in these United States.

To continue our metaphor, cancer institutes, cancer hospitals, and special cancer clinics must be regarded as the heavy artillery which is called upon to aid and support the men in the trenches and to clear the way for them before any material advance can be made against the enemy.

In addition to providing consultative cancer service, however, much yet remains to be done in awakening the interest of physicians in the cancer problem, and in overcoming the pessimism with which they have in the past regarded this disease.

A month ago the Cancer Committee of the Massachusetts Medical Society arranged a two-

day series of clinics in the Boston hospitals, and one hundred and seventy-five cases of five-year cures of cancer were present and were demonstrated, in an effort to overcome this pessimism. There is no question that the physicians who saw those cases went away convinced that there was work which they could do to diminish the mortality from cancer.

There are other ways also in which the practicing physicians of this country can help the situation. Many intelligent patients—in my part of the country at least—seek advice from a physician in regard to cancer only to be put off—sometimes actually without examination—with the explanation that their symptoms are not suggestive of cancer. It is well known that many cases of cancer of the rectum are treated for hemorrhoids, and many cases of irregular uterine bleeding are attributed to the menopause until advancing symptoms necessitate the examination, which reveals advanced cancer. It is generally understood, moreover, that it requires far more knowledge and experience to give safe assurance to a patient that he has *not* got cancer than to detect it when it is present. Any patient presenting symptoms which could possibly be due to cancer deserves the most painstaking examination which the physician consulted is capable of giving.

Another matter in which members of the medical profession can contribute to obtain more accurate information in regard to cancer is in relation to the signing of death certificates. To be of any value it is the point of origin of cancer that is significant, not the site of its metastases. Thus, primary cancer of the liver is a very rare disease, and yet some ten thousand deaths from cancer of the liver are recorded annually in the United States. Many of these may be secondary to cancer of the stomach or intestine, but it is safe to say that actually a very considerable number of these cases were primarily cancer of the breast or of other remote organs and only secondarily involved the liver in the terminal stages of the disease.

IN CONCLUSION

Finally, and in conclusion, I would like to indicate to you the possibilities in the way of a reduction of the annual mortality from cancer, even with no material addition to our present resources for the diagnosis and treatment of the disease. In the registration area of the United States, where records are kept of the nature and location of the diseases which cause death, as indicated on the death certificate, an average of 108,000 fatal cases of cancer were recorded annually in the years 1927, 1928, and 1929. This total mortality is further divided into the different regions of the body affected, and in this way we find that cancer of the lip had an average annual mortality during these years of only 554 cases, cancer of the breast accounted for 9946 cases, and cancer of the stomach for 24,602.

We recognize further that cancer in some of its locations is far more favorable for cure, by our

modern methods of treatment, than is that in other regions. We may indeed select the following list of locations, namely, lip, mouth and tongue, stomach, intestine, rectum, ovary, uterus, breast, and skin, as being the more favorable situations, as indeed they are also the more common locations, comprising nearly two-thirds of the total deaths from cancer every year. One cannot say that there are *no cures* even in the remaining one-third of cases which occur in regions or organs which are less favorable for cure, but they have been omitted from consideration in this estimate on the ground that the numbers of cure are few, and that we have not at the moment any very accurate statistics on which to base our calculations.

At the clinic for "cured" cases of cancer, which we held in Boston in April, we were able to obtain from the Palmer Memorial, the Collis P. Huntington Memorial, and the Massachusetts General Hospital, the actual percentages of all primary cases of cancer of these ten regions which were found to be alive and free from disease for at least five years after treatment. We also succeeded in obtaining the actual percentages of five-year "cures" for each of these regions in the early and favorable cases which were recognized and given effective treatment, whether by surgery, or by x-ray or radium, or by a combination of these methods.

As an example, I will cite the figures for cancer of the breast, which are based on the series of cases which entered the wards of the Massachusetts General Hospital in the calendar years 1921, 1922, and 1923. One hundred and seventy-seven cases of cancer of the breast entered the hospital during these three years, and five or more years later fifty-six of these patients were alive and well, or 32 per cent. Of these 177 cases some were frankly inoperable, others were suitable only for palliative operations without expectation of cure. The remaining 111 cases were suitable for an attempt at radical cure by operation, and fifty of these cases were in the early local and favorable stage of the disease. Of these fifty patients, thirty-one were alive and well at the end of the five-year period, or 62 per cent. Similar figures were obtained for the other nine "favorable" locations, some being, of course, less encouraging and others more so.

With the mortality figures of the Census Bureau as a starting point, using the percentage of cures in all primary cases in these ten regions, it was possible to calculate the annual number of patients alive and dead for these ten regions, thus constructing a morbidity estimate which we have not had before. Thus, if there were 554 deaths from cancer of the lip, and the primary cures amount to 60 per cent, 554 is 40 per cent of the total number of cases, *i. e.*, 1385. If to this morbidity figure we then apply the percentage of cures obtained in early and local cases of lip cancer, namely, 88 per cent, we get an annual mortality figure of only 167 cases, and our cures increase

from 831 cases annually to 1218, a saving of 387 lives in every year.

It is probably true that the percentage of figures obtained at these three Boston hospitals are not as high as those of a number of other special cancer institutes and cancer clinics, but it is our belief that they may be taken as a reasonable average for the larger clinics throughout the country. If, on the contrary, the criticism is offered that these percentages are too high, I can only say that every hospital in the country which has modern equipment in the way of surgery, x-ray, and radium, and a coöperative pathological laboratory can readily equal these figures if indeed they do not surpass them. It is only a question of the amount of energy and interest devoted to this particular field of medicine.

Applying this method of computation to the whole group of ten locations which we have classed as "favorable," we obtain an estimate of 92,618 cases of cancer annually, a mortality of 69,508, and only 23,100 "cures," or 25 per cent.

If, however, all of these 92,618 cases in the favorable group could be discovered and treated while in the early and local stages of the disease, the mortality would be brought down from 69,508 to 39,958, the "cures" would rise from 23,100 to 52,660, a saving of 29,550 lives a year, and a reduction of the total mortality from cancer of 27 per cent.

No miraculous discovery of the long-sought cause of cancer is necessary to obtain these results, nor any specific remedial agent. Only three things need to be done to accomplish this result. The public must be taught to recognize symptoms which are in any way suggestive of cancer, and to avoid the least delay in consulting a competent physician. The medical profession must be aroused to the vital importance of immediate and thorough examination of the patient. When the physician is himself in doubt as to the diagnosis, expert consultative service in the cancer or tumor clinic of some readily accessible general hospital must be made available to him and to his patients, without unreasonable expense.

The Cancer Commission of the California State Medical Association has already made a formidable attack upon this question in arousing the interest of the physicians of California. In due time they will proceed to sponsor the education of the public, and in the meantime special cancer hospitals and cancer clinics in general hospitals are being established all over the State of California and in other states as well.

It appears to me that it rests very largely with us, as members of the medical profession, whether we shall take on this fight to reduce the cancer death rate. I confidently hope that the members of the California State Medical Association will be among the first volunteers to enlist, and that it will be for the duration of the war.

Harvard University Medical School.

RESECTION OF THE PYLORUS—ITS EFFECT ON THE SECRETORY AND MOTOR FUNCTIONS OF THE STOMACH*†

RESEARCH PRIZE PAPER OF THE SIXTY-FIRST
ANNUAL SESSION OF THE CALIFORNIA
MEDICAL ASSOCIATION

By HAROLD L. THOMPSON, M. D.
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SURGERY steadily is assuming greater importance in the treatment of disease of the stomach and duodenum, owing to the appearance of increasing numbers of reports of favorable clinical results. In clinical practice three general types of surgical operation are employed in the treatment of disease of these organs, namely, plastic gastroduodenostomy, simple gastrojejunostomy, and pyloric resection. Resection of the pylorus is employed universally as an operation of necessity for radical cure of malignant disease of the stomach. Opinion is divided, however, regarding the use of this operation in the treatment of benign peptic ulcer. Whereas a small number of gastric surgeons apply it empirically in the treatment of uncomplicated peptic ulcer, another group of surgeons maintain that neither theoretical nor practical results warrant the use of so radical a procedure in the treatment of benign disease. This difference of opinion exists because the physiologic effects of pyloric resection have not been established conclusively.

The problems which arise in an analysis of the fundamental aspects of this subject are numerous and complex. For example, the pyloric portion of the stomach anatomically consists of two parts, the pyloric antrum and the pyloric sphincter. Each of these parts possesses two distinct functions. The functions of the pyloric sphincter are, first, the control of the discharge of food from the stomach, and second, the regulation of the entrance of intestinal juices into the stomach. The functions of the pyloric antrum include, first, the secretion of an alkaline, mucous, non-proteolytic juice, and second, perhaps, the exercise of a subtle influence over the secretory function of the fundus. In an experimental study of the effects of pyloric resection on the physiology of the stomach, one encounters peculiar conditions which must be controlled carefully. As an illustration, there are three phases of gastric secretion: cephalic, gastric, and intestinal. The normal gastric secretory response to ingested food is the composite result of influences from these three sources. Moreover, there occur variations in gastric secretion which are normal. There are secretory variations not only among different individuals, but also within the same individual; hence the necessity of maintaining properly controlled experimental conditions. Inasmuch as the application of operative

procedures to the human stomach presupposes the existence of organic disease of the digestive tract, clinical observations are not suitably controlled for physiologic interpretation. A corollary to this is that properly controlled physiologic observations may be made only upon stomachs in which disease does not exist. Thus, in this particular field, clinical results are not necessarily the equivalent of physiologic results. In view of the prevailing conflict of opinion regarding these fundamental and practical problems, an experimental study of the effect of resection of the pylorus on the physiology of the stomach seemed to hold promise.

The study reported here was conducted upon dogs. It is believed that the method which was used adequately controlled the variable factors involved. For example, in order to eliminate and thus control the factor of normal variation of gastric secretory response to a standard stimulus applied to different individuals, multiple operations (as many as five) were performed upon each animal employed. The physiologic effects of each operation were observed after the animal had recovered, by means of the fractional method of gastric analysis, and by roentgenologic examination performed before and repeated four weeks after operation. In this study a total of 22,074 determinations of acidity, including titrable total and free hydrochloric acid and hydrogen ion concentration were made on gastric content. Several different types of operation were utilized to elucidate different phases of the physiologic effects of resection of the pylorus. Multiple resections of graduated, successively greater portions of the pylorus were performed as separate operations, and the effects of each grade of resection were observed in the same animal. Continuity was reestablished after each resection by means of the Billroth gastroduodenostomy, or by the Polya or Billroth types of gastrojejunostomy. In supplementary studies the Pavlov fundus pouch, the Roux jejunojejunostomy, and bilateral transthoracic vagotomy were utilized. The effect of using one-half the amount of the test-meal also was observed. In keeping with the fundamental anatomic and physiologic character of these studies, descriptive historico-anatomic rather than strictly surgical nomenclature has been applied to the operations used. The results of these studies are of apparent physiologic, surgical, and clinical significance.

LITERATURE

Because of the limited space available, none of the three hundred articles in the literature on this subject, which were reviewed, will be referred to here, except by stating that the impression prevails among physicians that either resection of the pylorus or anastomosis between the stomach and intestine are sufficient in themselves to reduce the acidity of gastric content.

PROCEDURE

Throughout these studies on the effects of resection of the pylorus on the physiology of the stomach, a standard procedure was used. The

* This paper was submitted under the nom de plume, "I. Guthrie Bayard," and was awarded the Research Prize of one hundred and fifty dollars at the sixty-first annual session of the California Medical Association, Pasadena, May 2-5, 1932.

† Abridgment of a thesis to be submitted to the Mayo Foundation in partial fulfillment of the requirements for the degree of Doctor of Philosophy in surgery.

experiments were conducted upon healthy dogs of uniform medium weight.

The effects of operation on both secretory and motor functions of the stomach were noted. The effects on gastric secretion were observed by fractional analysis of gastric content. The effects on the motility of the stomach were observed roentgenologically. Repeated observations were made before operation and again at a uniform interval of four weeks after recovery from operation. A standard test-meal, consisting of 80 grams of fresh, lean, ground meat, and 250 cubic centimeters of tap water, and a standard dose of 1.0 milligram of histamin in fresh solution were employed separately as gastric secretory stimulants. A standard opaque meal of barium sulphate in gum acacia solution was utilized in roentgenologic examination. During the course of digestion, portions of gastric content were withdrawn from the stomach by negative pressure through a Smithies stomach tube. The emptying rate of the stomach was observed fluoroscopically following the administration of the opaque meal. On each sample of gastric content three determinations of acidity were made. Total and free hydrochloric acid were determined by the usual clinical method of titration of gastric content. Hydrogen ion concentration was determined potentiometrically.

Special care was exercised in the control of the normal variations in gastric secretion. The factor of normal temporal variation, within each individual, of gastric secretory response to a constant stimulus was controlled in three ways: first, by thoroughly training each animal to the routine of gastric analysis so that psychic influences were eliminated; second, by performing fractional analysis of the continuous (basal, resting) secretion at regular intervals over periods as long as one hour before the secretory stimulus was applied; and third, by drawing conclusions only on an agreement of the results of fractional analysis performed in triplicate before, as well as after, each operation. The factor of natural variation, among different individuals, of gastric secretory response to a given stimulus was controlled in two ways: first, by the performance of multiple operations on the same animal; and second, by the performance of the same operation on more than one animal. Obviously it is not possible to control these conditions in an analysis of the results of the operations which are performed on man.

This study of the physiologic effects of resection of the pylorus was conducted in three phases. The first phase consisted of observing only the gross effects of resection on the acidity and movement of gastric content. Observations in the second phase were limited to the effects of pyloric resection on the secretory function of the stomach. The third phase was confined to observations on the neutralization of gastric juice after it is secreted into the pylorectomized stomach. Appropriate surgical methods were employed in each phase of the investigation.

In the first phase, the gross effects of resection of the pylorus were analyzed in detail by a method

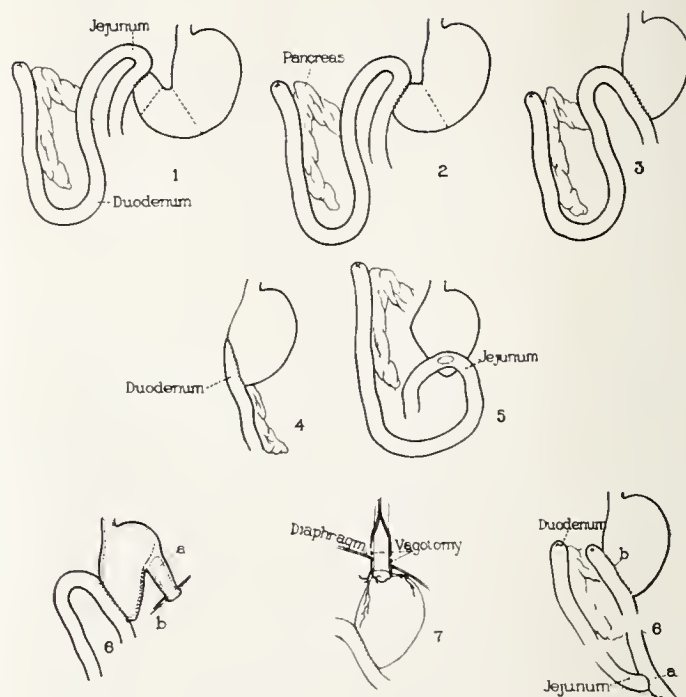


Fig. 1.—Diagrams of the operations which were used in the study of the effects of resection of the pylorus on the secretory and motor functions of the stomach: 1. Grade 1 resection of the pylorus with Polya gastrojejunostomy. 2. Grade 2 resection of the pylorus. 3. Grade 3 resection of the pylorus. 4. Pyloric resection with Billroth I gastroduodenostomy. 5. Pyloric resection with Billroth II gastrojejunostomy. 6. The Pavlov pouch in the pylorectomized stomach: (a) Pavlov pouch; (b) Abdominal wall. 7. Bilateral supradiaphragmatic vagotomy in the pylorectomized stomach. 8. The Roux jejunojejunostomy in the pylorectomized stomach.

which I devised especially for this study. The procedure permits investigation of the distinct functions of the two portions of the pylorus separately. This method consists of performing multiple graduated resections of the pylorus on the same animal. Resection graded 1 comprises removal of the distal one centimeter of the circumference of the pyloric portion of the stomach, including the pyloric sphincter (Fig. 1; 1). Keeping in mind the dual function of the pyloric sphincter, the effects of its removal should be reflected in two ways: first, by alterations in the motility (emptying) of the stomach; and second, by alterations in the acidity of gastric content resulting from more ready entrance of duodenal juices into the stomach. Recalling also the two functions of the pyloric antrum, these were observed quantitatively by the process of removing the distal and proximal halves of the antrum at separate operations. To accomplish this, two more grades of resection are employed. In resection graded 2, the distal half of the remainder of the pylorus is removed (Fig. 1; 2). Resection graded 3 consists of excision of the remaining half of the pylorus, along with a narrow band of the distal portion of the fundus in order to insure removal of all of the pyloric mucosa (Fig. 1; 3). Being the simplest of the standard methods of performing gastrointestinal anastomosis after resection of the pylorus, the Polya gastrojejunostomy is used. The observations on resection of the pylorus were conducted on ten dogs. Upon each dog multiple graduated resections were performed as described.

For the purpose of comparing other standard forms of anastomosis between the pylorctomized stomach and the intestine, the Billroth I gastroduodenostomy and the Billroth II gastrojejunostomy each were performed on pylorctomized dogs (Fig. 1; 4 and 5, respectively). Two dogs were used for each form of anastomosis. Thus, in the first phase of this study, only standard operative procedures which are used in clinical surgery were employed. Accordingly this phase corresponds to the clinical investigations which have been conducted on man.

In the second phase of the investigation, two additional operative procedures were applied to the stomachs of animals which had been pylorctomized at previous operations, namely, the Pavlov pouch and bilateral supradiaphragmatic vagotomy. These operations cannot be used justifiably in man, but are of the utmost service in the experimental elucidation of the effects of resection of the pylorus on the secretory function of the stomach. The Pavlov pouch was constructed in the fundus of the stomach of each of five dogs which had been used previously in observations on multiple graduated resections of the pylorus (Fig. 1; 6). Following ingestion of the test-meal, it was possible to collect from these isolated portions of the stomach pure fundus secretion. The acidity of the pure secretion was compared with that of the food and gastric juice mixture which was removed simultaneously from the stomach. The second operation used in this phase of the investigation was performed on three pylorctomized dogs. According to the Pavlov school, which recognizes gastric (secretagogue) and cephalic (psychic) phases of gastric secretion, the former phase is removed by excision of the pylorus, but the latter phase is not affected by this operation. By means of supradiaphragmatic bilateral vagotomy, it is possible to eliminate the cephalic phase of gastric secretion in the pylorctomized stomach and thus determine its rôle in the residual secretory function of the stomach (Fig. 1; 7). The actual state of gastric secretory function in the pylorctomized stomach was determined by the aid of these two special operations.

For the purpose of investigating the neutralization of gastric juice which is secreted into the pylorctomized stomach as the third phase of the present study, two procedures were used. In the first procedure, the rôle which the duodenal juices play in this respect was observed by utilizing the Roux jejunojejunostomy. This operation was performed on three pylorctomized dogs. By means of this surgical procedure, the duodenal juices were shunted into the jejunum at a level forty-eight centimeters distal to the original Polya gastrojejunal anastomosis (Fig. 1; 8). In this manner their neutralizing effects were excluded from the stomach. In the second procedure of this phase of this investigation, the effects of different quantities of food on the acid values of the content of the pylorctomized stomach were observed. This was accomplished by comparing the results obtained from the use of the standard meal with those secured from the use of a meal

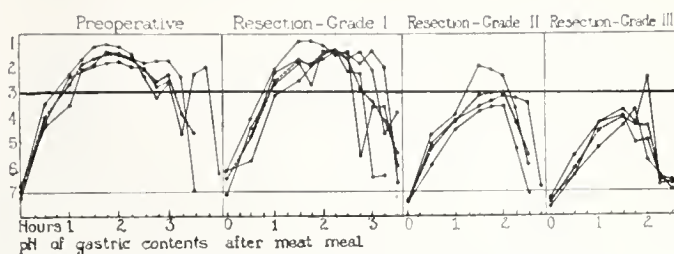


Fig. 2.—Chart illustrating the effect of graduated multiple resection of the pylorus on the hydrogen ion concentration of the gastric content according to repeated fractional gastric analysis, employing the standard test-meal of meat and water. Note that the concentration of H ions is not lowered after resection grade 1, that it is slightly lowered after resection grade 2, and that after grade 3 resection it is markedly lowered, and that free hydrochloric acid is not present (H ions below 3).

containing one-half the standard quantity of ingredients. Two dogs were used in these observations. The effect of resection of the pylorus on neutralization of gastric content was observed by these methods.

RESULTS OF EXPERIMENTS

In the succeeding report on the observed effects of resection of the pylorus, the term "acid values of gastric content" refers collectively to hydrogen ion concentration and titrable total and free acids. Likewise, the term "duodenal juices" refers to the mixture of succus entericus, pancreatic juice, and bile, as it occurs in the duodenum during digestion. In the figures which illustrate this report, the variations in H ion concentration observed in gastric analysis performed in triplicate are shown. They are plotted in terms of pH.* The pH curves formed in this way are inverted, so as to conform with the direction taken by the curves which are used in clinical practice to represent titrable acidity. Since by definition the symbol pH is the negative expression for H ion concentration, the latter term is retained in this report to compensate for the inversion of the curves. Thus, a rise in the inverted pH curve denotes a decrease in pH and an increase in H ion concentration.

Attention also is called to the line which extends horizontally across each figure from the number 3. In gastric content having a concentration of H ions of 3, a trace of titrable free hydrochloric acid also is present. The portions of the H ion concentration curves which occupy the zone above this line thus indicate the presence also of free hydrochloric acid in the gastric content. Free hydrochloric acid is not present if the curves do not extend to the level of this line. The titrations of free hydrochloric acid which were conducted simultaneously with the H ion concentration determinations actually demonstrated the truth of this relationship.

GRADUATED MULTIPLE RESECTION WITH POLYA GASTROJEJUNOSTOMY

The observations on the gross effects of graduated multiple resections of the pylorus were significant. After these resections the acid values of gastric content subsequent to ingestion of the test-meal varied indirectly with the amount of the pylorus removed (Fig. 2). Like results were observed in the ten animals used in the experiments.

* Editor's Note.—For article on interpretation of pH curves, see Miscellany, page 475.

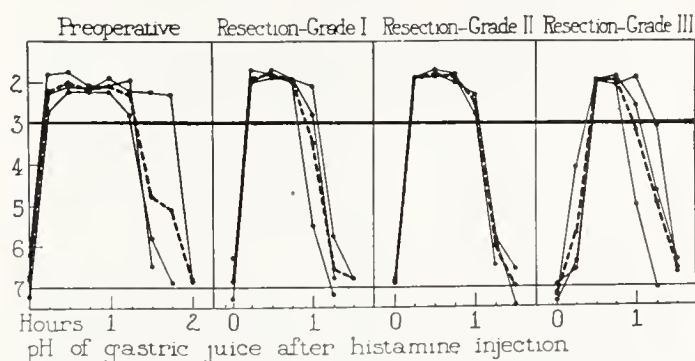


Fig. 3.—Chart illustrating the effect of graduated multiple resection of the pylorus on the hydrogen ion concentration of gastric content according to repeated fractional gastric analysis employing the standard dose of histamin. Note that the H ion concentration is normal after all grades of resection.

Subsequent to resection of the pyloric sphincter the acid values of gastric content were not reduced. Following removal of the distal half of the pylorus the acid values in the stomach content were slightly reduced. Removal of the entire pylorus was followed by a marked reduction in hydrogen ion concentration and total acid, and free hydrochloric acid did not appear. These observations were made when the test-meal was used in gastric analysis. A noteworthy difference in the results of gastric analysis was observed following the injection of histamin as a gastric secretory stimulant. After administration of this drug, reductions corresponding to the grades of resection were not noted (Fig. 3). A more striking difference, however, was that after Grade 3 resection of the entire pylorus, free hydrochloric acid, by contrast, was present. The latter observation indicates that despite the absence of the pylorus, the fundus, under appropriate conditions, is capable of secreting gastric juice which contains free hydrochloric acid. This difference in the presence or absence of free hydrochloric acid in gastric content, according to the kind of secretory stimulant applied, appears to have an important bearing on the mechanisms of secretion and of neutralization of gastric juice.

In roentgenologic observations on the emptying rate of the stomach following graduated multiple resections of the pylorus, interesting results also were observed. Following resection of portions of the pylorus, the emptying rate was reduced below the preoperative emptying time, regardless of the grade of resection. The rate, however, was not reduced increasingly for each grade of resection. Absence of the pyloric sphincter, therefore, rather than the increase in diameter of the pyloric outlet, seems to be responsible for the result observed.

PYLORIC RESECTION WITH BILLROTH GASTRO-DUODENOSTOMY AND GASTROJEJUNOSTOMY

In the four animals in which resection of the pylorus with Billroth I gastroduodenostomy and Billroth II gastrojejunostomy were performed, comparable results with respect to gastric secretion and motility were observed, with one exception: the emptying rate of the stomach was not reduced after Billroth II gastrojejunostomy (Fig. 4).

PAVLOV FUNDUS POUCH

In the preceding paragraphs it has been shown that there is a discrepancy in the amount of free hydrochloric acid present in the content of the pylorctomized stomach following the use of two types of gastric secretory stimuli. As a means of investigating this discrepancy, Pavlov pouches were constructed in the fundus of the pylorctomized stomach of five dogs, so that simultaneous fractional analysis of pure fundus juice and of mixed gastric content could be made. On comparison it was noted that the acid values of the mixed gastric content were low, and free hydrochloric acid was not present. The juice of the fundus pouch, on the other hand, possessed acid values which were normal, and free hydrochloric acid was present (Fig. 5). The fundus, therefore, actually secreted gastric juice having acid values which were normal. Following injection of histamin, the acid values of the gastric content, likewise, were lower than those of the pouch juice. From these observations it may be inferred that after resection of the pylorus there is a relative increase of buffer and neutralizing values in the gastric content.

BILATERAL TRANSTHORACIC VAGOTOMY

Elimination of the gastric phase of gastric secretion by pylorctomy having disclosed that the fundus pouch secreted gastric juice having normal acid values, the question naturally arose regarding the relative importance of the cephalic phase of secretion in the secretory activity of the fundus. Bilateral transthoracic vagotomy was used to eliminate the cephalic phase of gastric secretion in three pylorctomized dogs. Following this

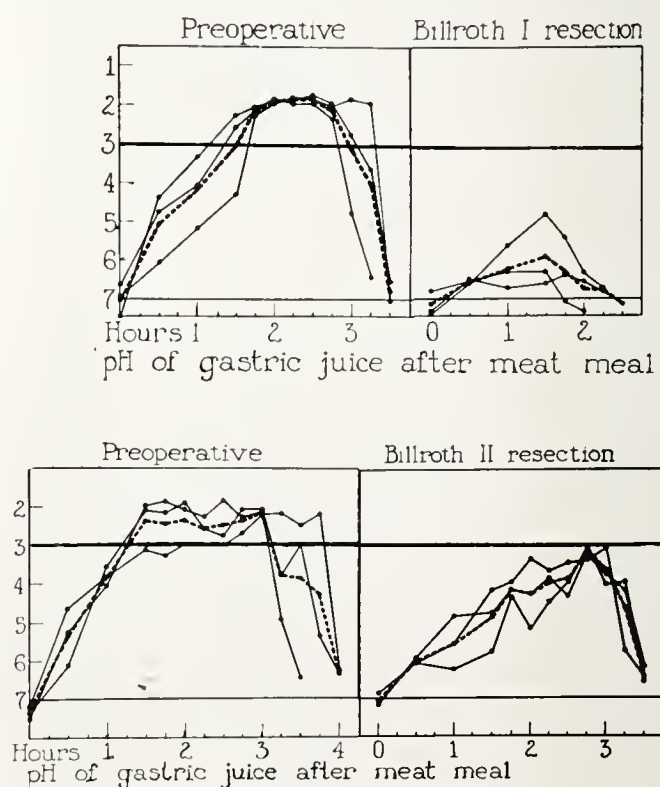


Fig. 4.—Charts illustrating the comparative effects of resection of the pylorus with Billroth I gastroduodenostomy and Billroth II gastrojejunostomy. Note that the H ion concentration is higher after Billroth II than after Billroth I, but that free hydrochloric acid is not present after either Billroth I or II.

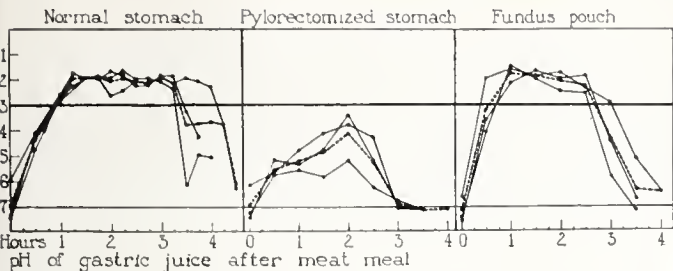


Fig. 5.—Charts illustrating the comparative concentration of H ions in the mixed gastric content and the pure fundus pouch juice of the pylorctomized stomach. Note that while the acid values of the pure pouch juice were normal, those of the mixed gastric content were low, and that free hydrochloric acid was not present, i. e., H ions below 3.

procedure, gastric juice with extremely low acid values was secreted on ingestion of food (Fig. 6). This observation indicates that, following pylorctomy, the cephalic phase of secretion is of major importance to the secretory activity of the remaining fundus.

ROUX JEJUNOJEJUNOSTOMY

The foregoing comparison of pure fundus pouch juice with mixed fundus content suggested that resection of the pylorus was followed by a relative increase in the amount of buffer substances present in the content of the stomach. As a means of determining the extent to which duodenal juices contribute to this apparent increase in buffer substances, these juices were excluded from the stomach by means of the Roux jejuno-jejunosomy performed upon three dogs, which had previously been pylorctomized with Polya gastrojejunal anastomosis. After exclusion of the duodenal juices from the stomach by the Roux operation, slightly higher acid values were present in the gastric content (Fig. 6). This indicates that the duodenal juices which enter the stomach normally or after resection of the pylorus possess a slight degree of buffer value and neutralizing power.

NEUTRALIZING EFFECT OF FOOD

The extent to which duodenal juices neutralize gastric juice having been ascertained, there remained to be determined the buffer value and neutralizing power of the food used in the analysis of the content of the pylorctomized stomach. In this investigation, a comparison was made between the results obtained from the standard meal and those secured when a meal containing half the standard quantity of the same ingredients was used. Higher acid values were obtained on employment of the half-quantity meal (Fig. 7). This result reveals that meals of ordinary size may

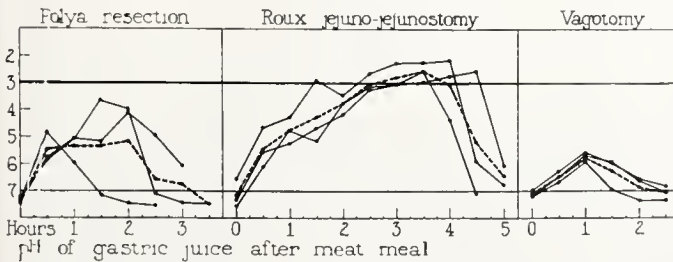


Fig. 6.—Charts illustrating the effects of the Roux jejuno-jejunosomy and of bilateral vagotomy on the acid values of the content of the pylorctomized stomach. Note that the acid values are higher after the Roux operation and lower after vagotomy.

contain sufficient protein to neutralize all of the hydrochloric acid the fundus is capable of secreting.

SUMMARY

A comprehensive study of the effects of resection of the pylorus on the secretory and motor functions of the stomach is reported herein. The manner of approach is different from that of any clinical or experimental investigation reported previously. The method is based on the application of certain standard and specially devised surgical operations to the normal stomachs of dogs. The physiologic effects of the operations are observed by gastric analysis and by roentgenologic examination.

A number of significant facts were observed in this study. Contrary to prevailing opinion, and despite the fact that the pyloric sphincter regulates the emptying of the stomach and the admission of duodenal juices into it, resection of the sphincter, combined with Polya gastrojejunosomy, does not lower the acidity of gastric con-

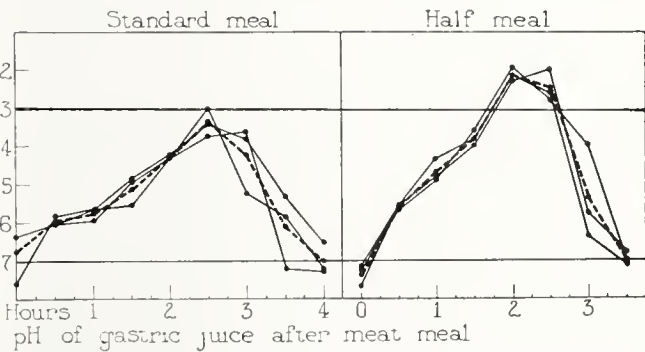


Fig. 7.—Charts illustrating the comparative effects of the use of the standard and the half-standard meal in gastric analysis following resection of the pylorus. Note that the acid values are higher when the half-standard meal is used and that free hydrochloric acid is present.

tent nor hasten emptying of the stomach. Graduated multiple resections of the pylorus confirmed the prevailing belief that the pylorus is essential to physiologically normal gastric secretory function. A roughly quantitative relation between the amount of pylorus present and the efficiency of secretion is suggested. The fact that widening of the outlet of the stomach does not shorten its emptying time also is contrary to the general conception.

The most important contribution resulting from this study refers to the apparent and real secretory functions of the pylorctomized stomach. The use of histamin and the Pavlov pouch disclose that the fundus, after removal of the pylorus, continues to secrete gastric juice having normal acid values. The most important factor in the secretion of gastric juice by the pylorctomized stomach is the cephalic phase of secretion as revealed by the performance of vagotomy. Achlorhydria occurring after pylorctomy is apparent only, and is the result of neutralization by the duodenal juices and the food. In the past the importance of the duodenal juices in this respect has been overemphasized, whereas the neutralizing capacity of the food has not been stressed sufficiently.

PSYCHOPATHIC WARDS IN THE GENERAL HOSPITAL*

By H. G. MEHRTENS, M. D.
San Francisco

IN spite of the steady improvement in the care of the psychiatric patient in the state hospitals and plans for the erection of neurological institutes and psychopathic hospitals, there is still one field in psychiatry very inadequately covered, and that is the psychopathic ward in the general hospital. Historically, there has been a tendency for the psychiatric patient to be treated apart from the general run of medical and surgical cases. Perhaps because of the special accommodations necessary, special technique in handling, and the prejudice of administrative officers in general, hospitals have had some bearing on this segregation. On the other hand, the greater reason may be attributed to the attitude held by laymen; and occasionally to the medical profession, who believed the psychotic patient had nothing in common with, and could receive no benefit from, the facilities of a general hospital. In the last twenty-five years the opposite trend is establishing itself. Some psychiatric conditions, such as paresis and encephalitis, have been demonstrated to have a pathology as definite as any in medicine, while still other psychoses which have not as yet been proved to have an organic basis have their roots in psychological mechanisms common to those exhibited in every ward of the general hospital. It thus comes about that the psychopathic hospital is now not necessarily located in the inaccessible wilds, but is being established near general medical centers where the laboratories and various specialists are available.

INTIMATE RELATIONSHIP BETWEEN GENERAL MEDICINE AND PSYCHIATRY

I would like to point out several reasons why an even more intimate relationship between general medicine and psychiatry must obtain. In the first place, we all recognize that the incipient conditions in psychiatry, like the beginnings of any medical condition, are more amenable to therapy than at any other time. Frequently these early forms are encountered in every service of the general hospital before they are referred to the psychiatrist. Unless a psychiatric service is closely coordinated with the other medical specialties such therapeutic opportunities are lost.

Then again, with public attitude toward the terms "mental" and "psychopathic" being what it is, there is less fear, embarrassment, and antagonism on the part of the patient and relations if the psychiatric examinations and the treatment of suitable cases are carried on in the same building where the general medicine and surgery are practiced. No difficulty is experienced when the patient feels that his ailment is not so different from those he has considered to be without stigma. It seems most reasonable and reassuring to the

mother that the problem child should receive advice and treatment of a psychological nature in the same clinic or hospital where its tonsils had been successfully removed. The patient presenting himself to the gastrointestinal clinic for aerophagia does not resent being referred across the hall for inquiry into the psychic causes.

PSYCHIATRIC WARD

The psychiatric ward itself needs no elaborate equipment. At Stanford we have found that, apart from a few precautions taken with windows and exits and a continuous tub, the ordinary hospital equipment is adequate. The essential element is the staff. It should consist of a psychiatrist, house officers, services of a psychologist, a psychiatric social service worker, and psychiatric nurses. Such an organization is able to develop a ward "atmosphere" of positive therapeutic nature. Excitable, difficult, and noisy patients transferred from other services of the hospital tend to find understanding and relaxation, to the great satisfaction of the hospital administrators. The great advantages of such a ward do not accrue to the patient alone. The hospital as a whole is relieved of the burden of caring inadequately for suicidal, noisy, and violent medical complications. The necessity for restraint and oversedation in the treatment of such patients is greatly diminished when the equipment is adequate and the personnel is experienced.

The medical staff tends to benefit in having under the same roof a demonstration of what the psychiatrist can contribute in a diagnosis and therapy for the psychiatric case common in every ward. The interns trained in such a ward have in our experience been of enormous usefulness in uncovering still further cases when they return to the other services.

Again, there is the type of patient who suffers from well defined organic illness, and in addition presents obvious psychopathic manifestations. This type of patient requires all the facilities of the general hospital but in addition requires that service only to be obtained in a psychopathic ward.

Finally, we must consider the steadily increasing number of procedures, both diagnostic and therapeutic, applied to the psychiatric case which necessitates frequent consultations with the laboratory and with all the other special departments of the general hospital. These procedures could not be economically performed unless the psychiatric ward was in close contact with the rest of the medical specialties.

VALUE OF PSYCHIATRIC WARDS TO MEDICAL STUDENTS AND NURSES

For the training of the medical student the psychiatric ward and the consultations of the members of its organization offer unique advantages. Here the student learns to consider the psychiatric work-up as just as much an essential medical procedure as a physical examination or laboratory work. He learns his psychiatry from examples taken from patients that appear to him

* Chairman's address, Neuropsychiatry Section of the California Medical Association at the sixty-first annual session at Pasadena, May 2-5, 1932.

to be typically medical or surgical cases. He meets few of the end results of institutional care and therefore does not consider the psychiatric case as one apart from the rest of the medical problems he is attempting to solve.

The training of pupil nurses in the handling of psychiatric cases is not only useful in graduating nurses who will devote their lives to this work, but presents an even more important function in giving the nurse who intends to devote herself to general nursing, or even to the other medical specialties, a psychiatric attitude that will prove most helpful to her patient and to herself. We have frequently been told that pupil nurses who have completed their services in the psychiatric ward and gone into other wards have shown a surprising ability to handle the ordinarily difficult patient.

SUMMARY

To sum up, the psychiatric ward in the general hospital, together with its out-patient department, offers to the patient facilities for a diagnosis of incipient psychiatric conditions at a time when therapy is of most value. It enables the patient to receive advice without conflicting with his prejudices, or feelings of guilt or shame. It offers to him and his family ideas of mental hygiene, without the need of overcoming a spirit of antagonism. The psychopathic ward offers to the general hospital facilities and an organization prepared to care for the difficult cases which would otherwise disrupt the smoothly running operation of the various services. It serves as a demonstration ground for the staff where the potentialities of psychotherapy may be displayed. It equips young men in their student and intern years, as well as pupil nurses, with psychiatric experience. It acts as a middle ground where both psychiatric and somatic conditions can be studied. Not until every general hospital is equipped with a well organized psychopathic ward will the psychiatric patient receive that early attention which is essential to the complete carrying out of any mental hygiene program.

Stanford University Hospital.

REGIONAL ANESTHESIA—ITS MODERN TECHNIQUE AND THERAPEUTIC APPLICATION*

I

By M. B. GREENE, M. D.
Brooklyn, New York

PRODUCTION of loss of sensibility for surgical and medical purposes has been aimed at since the days of ancient history. As pointed out by H. Braun, the oldest traditions in written form in our possession contain references to the induction of artificial sleep. Egyptians and Chinese, Greek and Roman physicians, as well as the "med-

icine men" of primitive African tribes, were acquainted with the intoxicating properties of certain vegetable juices and utilized these in the form of beverages for the relief of pain in surgical interventions.

INITIAL WORK OF RECLUS

In our modern age, one of the earliest pioneers of local anesthesia was Paul Reclus, of the University of Paris. For over a quarter of a century prior to the beginning of the World War, since 1889, Reclus had used local anesthesia for operative and therapeutic purposes. Although his method was far from satisfactory, it was rapidly adopted by various French and German surgeons, spreading from these countries throughout the civilized world. The method employed by Reclus was that of infiltration with cocain solution (1.0 of cocain in five per cent solution.) Because of the high toxicity and extremely rapid absorption of this drug, especially from closed cavities lined with mucosa or serosa, this method had a very limited field in surgery and an even more restricted range in therapeutics.

INFILTRATION METHOD

The rapid evolution of local anesthesia may be said to have set in since the discovery of Novocain, by Einhorn, in Germany, in 1905. "Novocain" is the proprietary brand name for procain hydrochloride, a crystalline compound often known in the United States as procain and sometimes designated as Kapp's serum, after Josef Franz Kapp (New York).^{*} It is six times less toxic than cocain, passes slowly into the general circulation, and its local action, favored by the addition of adrenalin, is neither irritative for the infiltrated zone nor injurious to the vitality of the tissues, these properties rendering it the anesthetic of choice for local as well as regional anesthesia. At the beginning, because of the inadequate technique and lack of proper instrumentarium, this method was used by only a very small group of operating surgeons. Numerous accidents were reported and strong opposition arose against its use. But in the course of time, the technique was greatly improved, and with the introduction of modern type needles and syringes, the apparently impracticable and cumbersome method of Reclus developed into the practical and widely used infiltration anesthesia of today.

REGIONAL METHOD

In conformity with the advance of medical and surgical science, various research workers and surgeons endeavored to overcome the disadvantages of the infiltration method. So-called regional anesthesia developed in the course of time. Its application differs greatly from the infiltration procedure, where the solution is injected more or less at random into the tissues. In the regional method, the anesthetic solution is deposited at the point of origin of the nerve groups, or at some place along

*Read and cases demonstrated before a special meeting of the Washoe County Medical Society, Nevada, on October 8, 1931.

^{*}Dorland's Medical Dictionary, Fifteenth Edition, 1929, page 836.

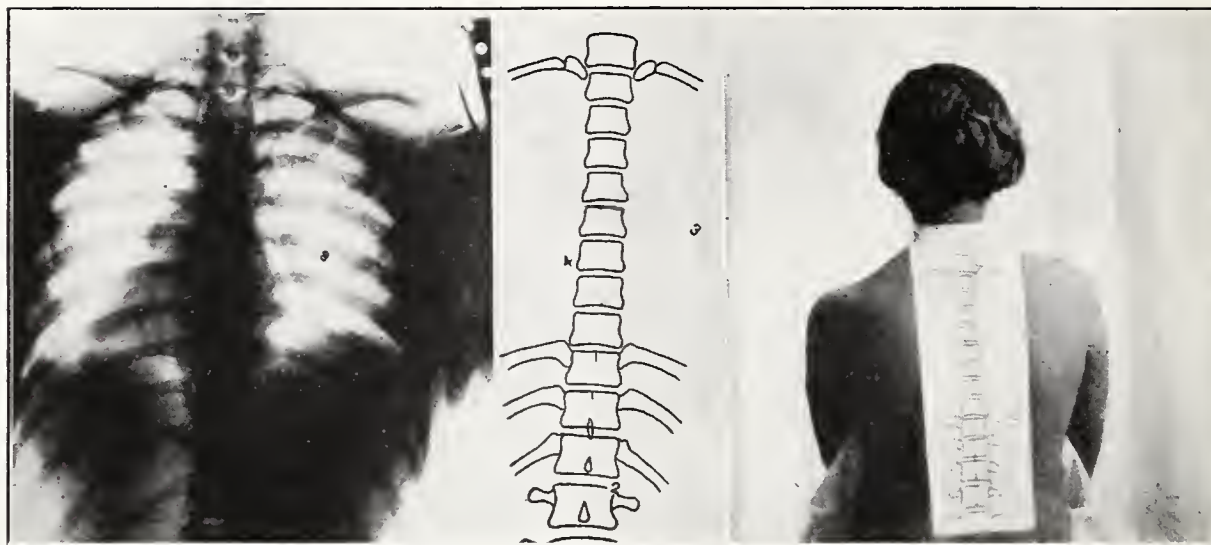


Fig. 1

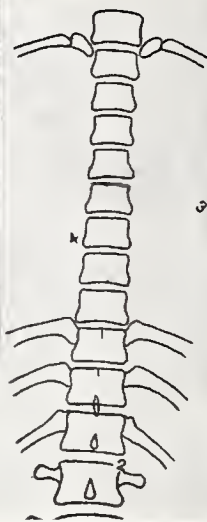


Fig. 2



Fig. 3

Fig. 1.—Represents an x-ray plate taken on an experimental case. Three opaque markers are placed on patient's skin, superimposed on tattoo mercurochrome markings. The place where markers were fixed with adhesive are marked on the x-ray picture with numbers 2, 3, and 4.

Fig. 2.—Represents processed lantern-slide image, prepared from x-ray plate in which only contours of the vertebrae, ribs, and transverse processes are visible. The spots where the opaque markers were placed are marked with numbers 2, 3, and 4.

Fig. 3.—Shows how the lantern slide is projected back on patient's skin. Observe that the numbers 2, 3, and 4 superimpose over tattoo marks placed on patient's skin; in this way normal relative dimensions are maintained.

the nerve trunk near its origin, so that the entire region supplied by the specific nerve or nerve groups and its branches is anesthetized.

Here again, France led the way and Victor Pauchet was among the first to point out the great advantages of this method. In Germany, H. Braun and his followers advocated its adoption. Dr. Charles Mayo, who in 1920 was present at one of Pauchet's operations under regional anesthesia, asked for permission to take Pauchet's pupil and anesthetist, Gaston Labat, with him to the Mayo Clinic in Rochester. Dr. Labat, who had been Pauchet's anesthetist during three years and become an expert, remained for one year in the Mayo Clinic. Upon his arrival, he began his lectures at the Mayo Clinic Foundation. His excellent and invaluable work is chiefly entitled to credit for the present success and widespread use of regional anesthesia in the United States.

DEVELOPMENT OF REGIONAL ANESTHESIA

It is not our intention in this paper to link intraspinal anesthesia or so-called subarachnoid block with regional anesthesia proper, although spinal anesthesia can be regarded as an extensive nerve block. For the present, we wish to approach the problems of regional anesthesia proper. The progress of regional anesthesia was rather slow. This fact is due to four principal factors:

1. The anesthetist must have a very accurate knowledge of anatomy, more particularly osteology.

2. A high degree of skill and mastery of technique is required, so that the anesthesia may be induced quickly and without danger.

3. The length of time required for the blocking of several nerves is rather considerable, especially when such a block is bilateral, even with the most skilled operators.

4. Lack of exact knowledge of the situation of bony landmarks. Hence the exact localization of the nerves to be blocked involves great difficulties,

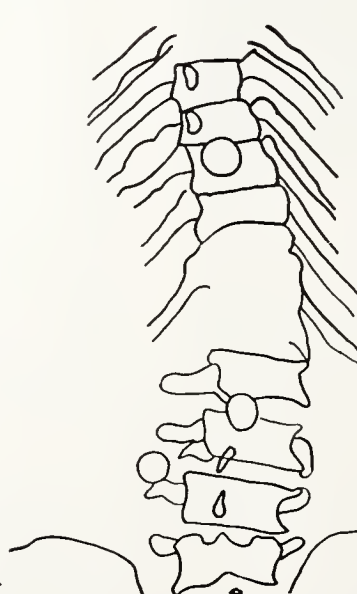


Fig. 4

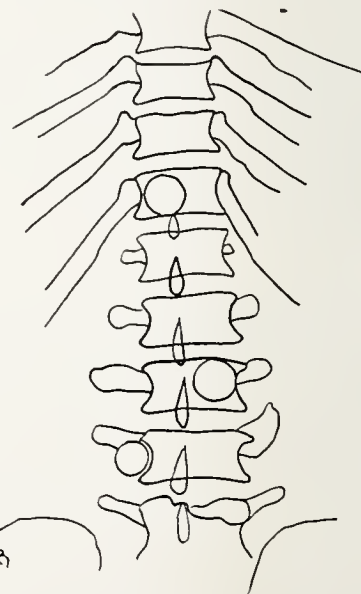


Fig. 5

Fig. 4.—Represents processed lantern slide taken from x-ray plate made for an experimental case at the Kings County Hospital, New York City. Observe the rotations of transverse processes and malformation of same as well as the general deformities of spine. Without the x-ray localization, blocking of such a case would be practically impossible.

Fig. 5.—Processed plate made from x-ray plate from an experimental case at the Kings County Hospital, New York City. Note and compare the size of the first right lumbar transverse processes and the fourth right lumbar transverse processes. Without the x-ray visualization there would be great difficulty in locating the first transverse processes.

meets with serious obstacles, and may be dangerous where therapeutic alcohol block is employed.

TWO TYPES OF BLOCK ANESTHESIA

Regional anesthesia may be divided into two parts:

1. Field block anesthesia, in which the solution is distributed in certain definite planes in a fan-like manner, so as to reach all nerves crossing these planes.

2. Nerve block proper, where the anesthetic solution is deposited extraneurally or paraneurally in such close vicinity to the nerve trunk that its conductivity is interrupted by the action of the anesthetic agent.

NERVE BLOCK ANESTHESIA

This paper does not deal with the field block, the technique of which is relatively easily mastered. Conditions differed in the case of nerve block. Topographical anatomy contains the fundamentals upon which the entire knowledge of regional anesthesia depends. Visualization of superficial and deep bony landmarks and prominences, as well as the knowledge of their relation to the nerves to be blocked, are of the highest importance in this connection. The estimation of the length, width and depth of such bony landmarks has proved the chief technical difficulty. Our dissecting room experiences have rendered all of us familiar with the innumerable skeletal variations. This is particularly true with respect to the forms and shapes of the transverse processes of the vertebrae, the configuration of the ribs, the situation and direction of sacral foramina. (See Fig. 4-5.)

Palpating and locating the superficial bony prominences is always essential in guiding the needle into the deep structures. Such palpation, while possible in lean patients, is most confusing in fat and flabby individuals. This last mentioned group, remarkably enough, forms the larger contingent of patients requiring nerve blocking in one form or another.

The anesthetist must rely exclusively on his mental picture of the underlying skeleton and upon the development of his tactile sense for the localization of the indeterminate deep bony landmarks which serve as his only guide for a proper localization of the nerves to be anesthetized. The following picture is familiar to all of us:

PROCEDURE IN NERVE BLOCK ANESTHESIA

A patient is chosen to be operated upon under nerve block anesthesia. Instruments and solution are carefully checked and prepared. The patient is placed upon the operating table, and the tedious procedure of locating the necessary nerve trunks is begun. Even at the hands of the most skilled experts there is a necessity for continuous introduction and withdrawal of the blocking needle, with numerous changes of its direction, until finally the deep landmarks are located, the position

of the needle is changed once again and the injection is applied. Many times the patient moves and the search for the deep landmark must be resumed, causing additional traumatism and exhausting the patient as well as the surgeon. When such a procedure is bilateral and when several nerves are to be injected, the work is often abandoned unfinished, and general anesthesia is called for. Should this be the case for therapeutical block, the patient is greatly discouraged and very seldom consents to the repetition of the procedure. When the operation is at an end, we are usually asked by the hospital superintendent (who greets us with an indulgent smile) to begin our future operations at 7 or 8 a. m.

During the past two and a half years, I have had the privilege of watching and assisting some of our leaders during numerous nerve blocks. Yet, even in this relatively short period of time, working with a comparatively selected group of patients, some failures were observed, due to the anatomical difficulty in locating the necessary landmarks within the allotted time.

Now, if there exists a small percentage of failures at the hands of such great experts, no wonder the average surgeon meets with numerous unsuccessful attempts and is discouraged. No method, no matter how efficient or advantageous, is of real value, unless it can be duplicated by others.

The popular belief, that all we have to do to become proficient in regional anesthesia is to take a course in one or another institution offering such courses, is a pure illusion. Without the basic knowledge of anatomy and physiology, the student will meet with failure.

The education and development of the tactile sense for location of various deep structures in connection with nerve block may be a remarkable accomplishment, but it is not scientific. The tracing of such landmarks on the surface of the skin, using arbitrary schematic formulas (a definite number of centimeters from the spinal processes, et cetera), is far from being accurate, particularly in the presence of skeletal abnormalities, as exist in a great majority of cases.

Alcohol Block.—In therapeutic alcohol block, all the foregoing factors are emphasized, because of the smaller amount of solutions which can be permissibly injected and the greater accuracy required in locating the nerve trunks. Here also the question remains whether or not there is any osteoarthritic production along the bony structures in the vicinity of the nerve trunk to be injected, which may in some cases surround, overlap and even compress the corresponding nerve trunk. This demonstration is of the highest importance. The necessity for visualization, contours and topographical relations of such osteoarthritic productions, prior to the introduction of the needle is indisputable.

(To Be Continued)

FRACTURES OF THE PELVIS

AS MET WITH IN MOTOR-VEHICLE ACCIDENTS

REPORT OF CASES

By Q. B. CORAY, M. D.
Salt Lake City, Utah

IT has long been recognized by the medical profession that with every new type of transportation or industrial process comes a type of bone injury that is more or less distinctive.

MOTOR-CAR ACCIDENTS

Previous to the advent of the automobile, fractures of the pelvis resulting from falls, from falling rocks or timbers, from vehicular accidents where the victim was run over, and from squeezing accidents as in the case of a miner being caught between an ore car and the so-called rib of a tunnel were occasionally seen in practice. At the present day, however, it is quite apparent that the incidence of pelvic fractures is increasing definitely and that the increase is due to the frequency of motor-car accidents. When reviewing a number of cases, a certain similarity among these fractures, and also a close resemblance between them and the type of injury sustained by the miner crushed by an ore car, is evident. The mechanism is, of course, quite similar, and is dependent upon a sudden force applied to the greater trochanter, such as would occur to the occupant of a car struck side-on at an intersection. The degree of force of the blow, together with the occurrence of other forces at the same time, determines the nature and extent of the damage.

COMMENT

After consideration of a series of cases in private and hospital practice and a hasty survey of the literature, the following conclusions have been arrived at regarding this subject:

The possibility of fractures of the pelvis in automobile accidents should always be considered. Routine x-ray examination is strongly advised.

When the pelvis is struck or crushed in a lateral or anteroposterior direction, the first points of breakage are in the pubic rami or at the ischio-pubic junctions.

Lateral pressure distorts the pelvic ring and occasionally breaks the wing of the ilium.

The seriousness of the prognosis is dependent in most cases on soft tissue trauma, more particularly injury to the bladder and urethra. Rupture of the intestines, rectum and vagina, and injury to the iliac, vesicle and pudendal vessels and the sacral nerves may occur.

The most frequent fatal complication is rupture of the bladder caused by bursting when that organ is full, or by tear from a bone spicule. Rupture of the urethra in the male results when a fracture of the descending ramus of the pubis on either side draws the triangular ligament upward. The effect of this complication is a peroneal and lower abdominal cellulitis from extravasation of urine into the soft tissues, a serious but not fatal condition. Where a ruptured bladder is present, however, the patient is quite likely to die of peritonitis. The complication of a ruptured gut is too well understood to call for comment here.

The indications are that serious permanent disability resulting from fracture of the pelvis is rare.

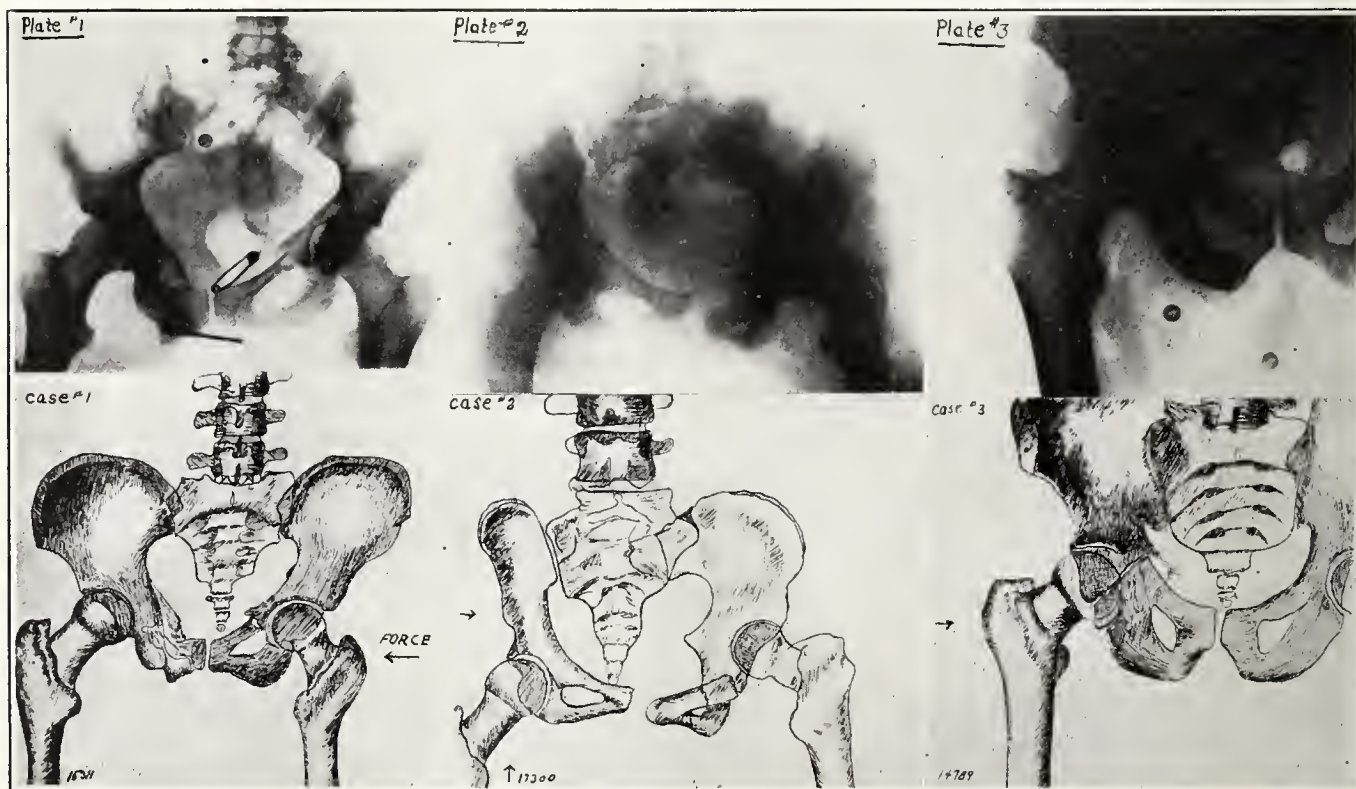


Fig. 1.—Shows common type of pelvic comminution. X-ray findings: fracture of pubic rami and ischiopubic region on right with moderate dislocation of fragments and little or no distortion of pelvic ring.

Fig. 2.—Shows gross distortion of pelvic ring with fractures of left pubis and marked upward displacement of right innominate bone.

Fig. 3.—Shows fracture of acetabulum from blow on greater trochanter. X-ray findings: linear fracture of right acetabulum and sharp spicule thrust out from inner surface of pelvic ring in region of right iliopectineal line.

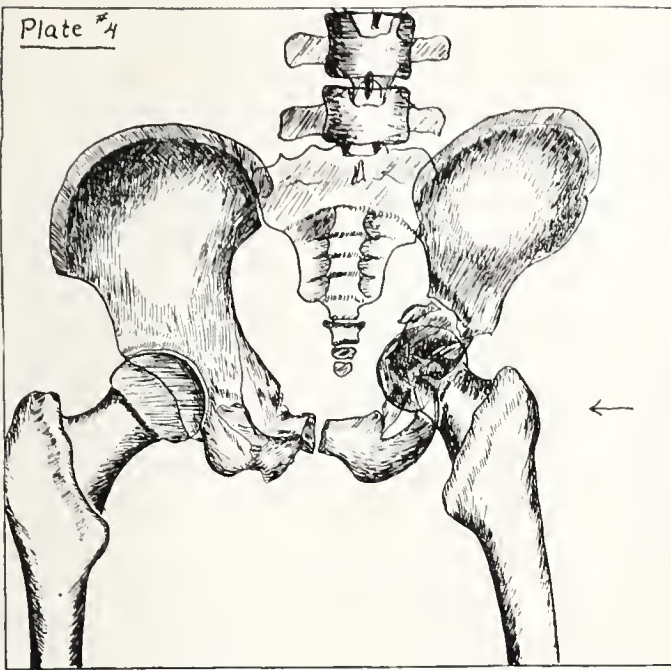


Fig. 4.—Shows injury caused by same mechanism as in Case 3, but with much greater degree of severity. (Sketched from memory of plate.)

REPORT OF CASES

The following cases are presented as typical of auto-accident fractures of varying degrees of severity:

CASE 1.—(Illustrating common type of anterior pelvic comminution.) Normally developed female, age twenty-five, brought to hospital in an unconscious condition, following collision at an intersection. Patient was being brought home from a late party, and did not remember exact details of accident.

Physical examination revealed bruises and minor contusions about hips. Abdomen was tense. No external evidence of fracture. Catheterized urine showed no blood. No rectal or vaginal injury noted.

X-ray findings: Fractures of pubic rami and ischio-pubic region on right, with moderate dislocation of fragments and little or no distortion of pelvic ring.

Patient remained in hospital for thirty days during which time "rest in bed" was the essential part of the treatment. Complete recovery was apparent a short time after being discharged.

There were several similar cases in my series.

CASE 2.—(Illustrating gross distortion of pelvic ring, with fracture of left pubis and marked upward displacement of right innominate bone.) Girl, age fifteen, was brought to hospital in semiconscious condition, following auto collision at an intersection. Past history and general physical findings unimportant. Marked abdominal tenderness, with the usual bruises and contusions. Marked irregularity of pelvis in region of symphysis, the left pubic bone being freely movable. No blood in urine. No evidence of injury to intestines or genito-urinary tract. X-ray findings, as noted above.

Patient remained in hospital eight weeks during which time various types of slings and traction were applied in an effort to reduce the dislocation at the right sacro-iliac joint. When she left there was marked improvement in the condition about the symphysis, but the pelvic dislocation with resultant distortion of the pelvic ring persisted.

At present, six months after the accident, the young lady dances, works, and generally carries on without notable difficulty.

Comment.—The upward dislocation of the right pelvis may be accounted for by the fact that when the collision took place the patient was sitting in the back seat of the car with one leg propped up

on the back of the front seat. Probably a very effective force was directed upward through the right thigh.

CASE 3.—(Fracture of acetabulum from blow on greater trochanter.) Male, age fifty-nine, standing by his car, was struck by a motorcycle. Brought to hospital in conscious condition, complaining of intense pain in right hip joint. General physical condition and past history not important. Considerable aggravation of pain with movement of right leg.

X-ray findings: Linear fracture through right acetabulum, with a sharp spicule of bone sticking out from the inner margin of the pelvic ring in the region of the right pectineal line. Patient remained in hospital only eight days, treatment consisting of rest in bed. Some stiffness of right hip joint persisted thereafter. Disability slight.

CASE 4.—Sketched from memory of plate. This is a good example of what might have resulted in Case 3 had the force of the blow been greater. Penetration of the head of the femur through the acetabulum is a rather rare finding in the x-ray laboratory of average size. Probably a number of such patients die before they reach the hospital.

In this patient the disability was great, as a reduction could not be attempted and a stiff joint resulted.

CASE 5.—(Minor fracture of pubis with upward displacement of right innominate bone.)—Boy, age ten, riding on running board of truck, was knocked off and fell under wheel.

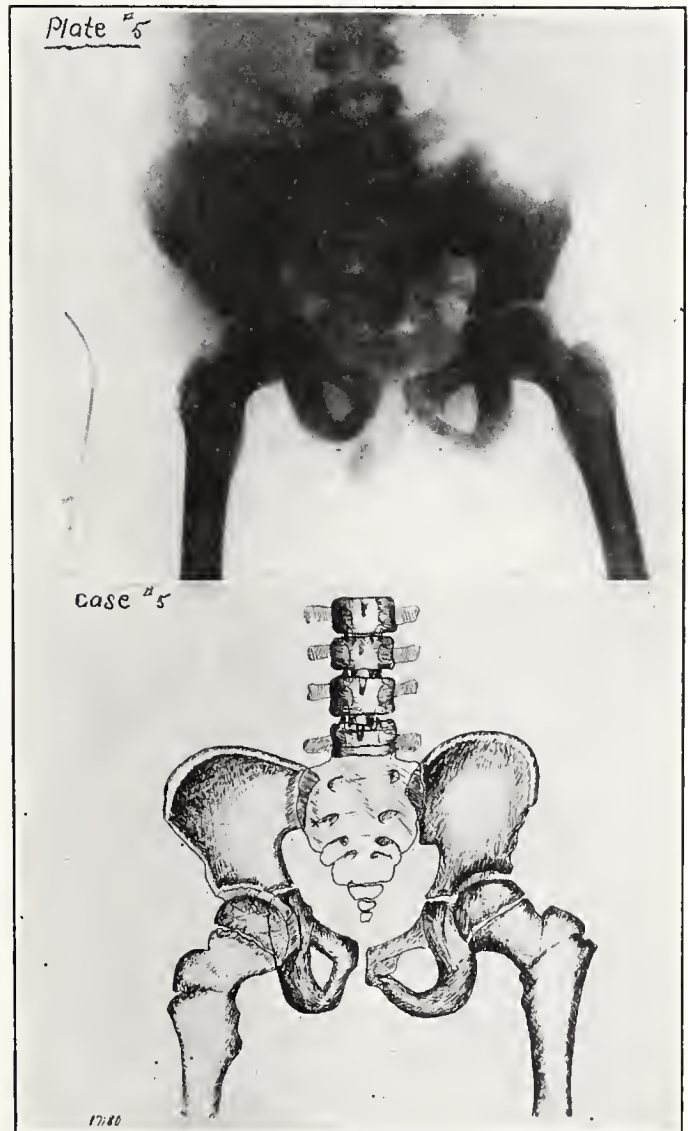


Fig. 5.—Shows minor fracture of pubis with upward displacement of right innominate bone.

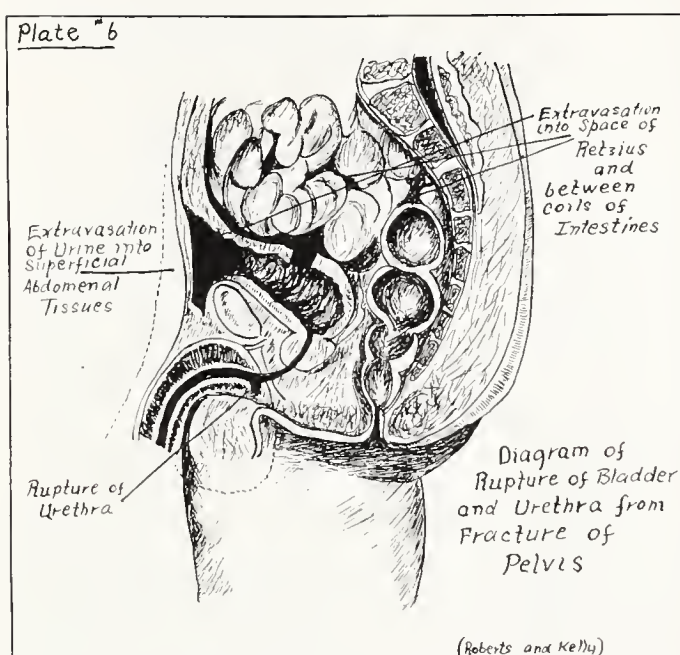


Fig. 6.—Longitudinal section through pelvis demonstrating direction of extravasation of urine from ruptured bladder or urethra.

This plate is copied from Roberts and Kelly's text on orthopedics and furnishes a clearer demonstration of the immediate effects of a ruptured bladder or urethra, these complications being highly important in cases of fracture of the pelvis.

Physical findings: Patient not unconscious, but in profound shock. Marked tenderness of abdomen and usual minor bruises about hips. No evidence of bladder injury. No intestinal rupture apparent. X-ray findings, as above.

This patient remained in the hospital seven weeks. Manual reduction was attempted under anesthesia without change in position of right innominate bone with relation to sacrum. Four months after accident there is apparently little or no disability.

207 Medical Arts Building.

THE LURE OF MEDICAL HISTORY

THE RISE OF EXPERIMENTAL EMBRYOLOGY*†

By A. W. MEYER, M. D.
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VII

IT is illogical as well as impossible to isolate the story of experimental embryology, for it is inextricably interwoven with the rest of it. My reason for giving separate consideration to experimental investigation is not because I regard

* Author's Note.—Through an oversight John Hunter instead of William was credited with the authorship of the *Anatomia Uteri Humani Gravida* in the May installment of my essays. This is especially embarrassing because of John's remark about stuffing him with Latin and Greek. My sympathy has always been with him, and it seems highly probable to me that he really made the discovery regarding the utero-placental circulation, which is announced in the royal folio by William. In my enlarged manuscript I attempt to accord John recognition so long withheld him, for among other things embryological. John made an unequivocal statement of the law of recapitulation, usually attributed to Fritz Müller about half a century later.

† This is the seventh paper of a series of essays on this subject. Previous papers were printed in this journal as follows: Part I, in December California and Western Medicine, page 447; Part II, in January number, page 40; Part III, in February number, page 105; Part IV, in March number, page 176; Part V, in April number, page 241; Part VI, in May number, page 341.

such as more reliable or important than observation, but because a single experiment sometimes greatly and unexpectedly narrowed the horizon of futile speculation, and thus ended long-continued controversy or gave it new direction.

Even though the statement attributed to Pliny that the best results in the hatching of hen eggs are obtained after the eggs are ten days old is incorrect, it suggests that experiments upon these things had probably been made by that time. The same thing applies to the report of Diodorus (Siculus) that the Egyptians in the first century before Christ were using incubators, warmed by a fire, for the hatching of hen eggs. Since this could not well be done without observing the conditions concerned in incubation, it is more than likely that experiments in embryology were made in ancient Egypt as well, so that the history of experimental embryology probably extends farther back than that of morphologic embryology. Whether he wished it or not, even primitive man was often compelled by circumstances to undertake experiments. The method of trial and error is an old thing in the ascent of man. The evolution of tools and weapons alone illustrates this.

WORD "EXPERIMENT" AS HERE USED

In considering the early history of experimentation, I shall use the word "experiment" in a very general sense. I shall assume that anyone who put eggs under a hen or semen on an object carrier, however primitive, for the purpose of examining them from time to time was doing an experiment. I should take the same attitude regarding him who took reptilian eggs that he found in the sands of the seashore, in order to observe their incubation. Such a use of the word "experiment" also is in accord with that in the days of Redi and Spallanzani.

There undoubtedly were many who did experiments regarding whom the records were lost. Those who are familiar with Redi's work will recall that toward the end of his long letter to Carlo Dati, he wrote: "I tried a great many other experiments, and made many observations, but owing to carelessness, some pages on which I had inscribed them were mislaid." Réaumur, too, undoubtedly did many experiments of which I unfortunately have been unable to learn. We know that Harvey, Redi, Spallanzani, Réaumur, Malpighi, and many others of their day experimented in many fields of physics or nature, even if not predominantly along the line of embryology or what was then called generation.

Reference has already been made to the statement of a Hippocratic writer that if one desires to learn about the development of the chick one must put twenty-one eggs under a hen and remove one daily for examination. It may also be recalled that Aristotle suggested a flotation test for determining the fertility of semen. His idea was that if semen floated it had lost its fertilizing power and hence was sterile. The assertion of Aristotle that heat solidifies semen and that cold thins it also suggests that he may have experimented further in this connection, although Aristotle probably used the words "heat" and "cold" in a dif-

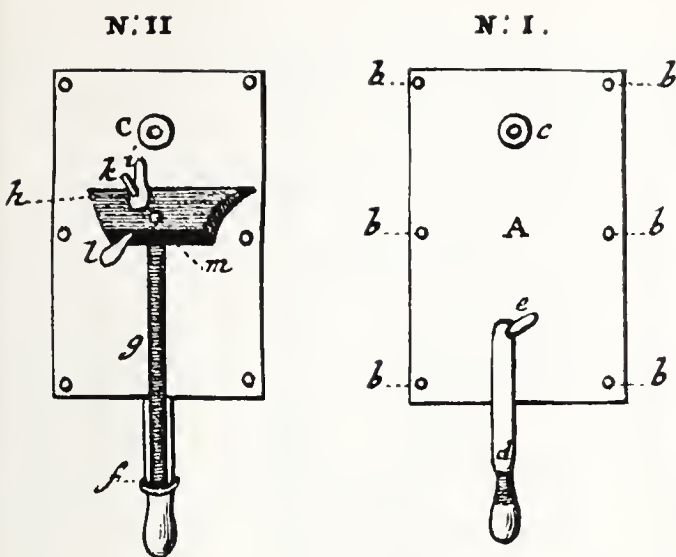


Fig. 1.—One of Leeuwenhoek's microscopes, actual size. (I) and (II), front and back respectively. (c) Lens. (g) adjusting screw, (h) stage, (i) rotating object carrier, (k) handle of same, (l) adjusting screw.

ferent sense. Such experiments as these well may have been sporadic, but the fact that they were undertaken, or even considered, suggests that many others may have been tried but were regarded as not being significant. The men of the past surely were not wholly without inclination to experimentation and they did not lack stimuli towards it.

VIEWS OF PARACELSUS

I know of nothing more unique in the whole history of embryology than the method for the alleged production of human beings given by Paracelsus. When referring to it in his very interesting treatise on the artificial changling, John Bulwer wrote:

"Paracelsus boasts that he had received this secret of secrets from God; affirming, that if the sperm of a man do putrifie in a sealed Gourd, to the highest putrifaction of horse-dung, forty daies, or so long untill it begin to live, and to move, and be stirred, which is easie to be seen, after that, it will be in some time like unto a man, yet pellucid and without a body: Now if afterwards it be daily, warily and prudently nourished, and fed with the secret of man's blood, and conserved for forty weeks in a perpetuall and equal heat of horse dung, it will thence become a true Infant, having members as those that are begot on women, but it will be far leasse: Then it is diligently to be brought up untill it grow a stripling, and begin to understand and be wise. And this secret is known to the Nymphs of the Wood, and the Gyants which are sprung from thence; for, there are also great and miraculous men made, who are conquerors, and skillfull in secrets, because they are borne by Art, therefore Art prevails in them; for it is borne in them, but they are not taught of others, being called the sons of Woodmen and Nymphs, because in respect of their virtue they are not like men, but spirits.

"Campanella, though he confesseth experience had not as yet brought him to the understanding of this mystery, and therefore after some scanning of the matter doubts not of the effect, yet he dares not deny it: for where there is something like unto the wombe, and Intelligence, if it become a humane body, God denies not to enfuse a mind: but where God reveals not, he is silent; as for Paracelsus his conceit, that Gyants and Nymphs were artificially borne, that he saies is false; for the first ought to be borne without humane Art: and that they used Art to the Generation of men and not Nature seems irrationall and false, unlesse the Intelligences, the Executrices of

Gods providence have used this Art in some Region; as God in the forming of *Adam*, which is uncertaine; besides, saies he, I think it false, that those that are gotten by Art are more prudent than those who are gotten the naturall way, and their Teachers, for Nature is wiser than Art, since Art is but her Disciple.

"Thus have we heard of the Pigmies of Paracelsus, that is his non-Adamiticall men, or middle natures, betwixt Men and Spirits; wherein he hath gone some way to meet their wish who desire to propagate the world without conjunction with women. The ground of whose Vote is supposed to be, that they had sensibly observed in impotency or totall privation of that which Eunuchs by Nature have, prolongeth life, they living longest in every kind, that exercise it not at all, Castrated Animals in any kind, as well as Spado's by Art, living longer than they that retaine their Virilities; for, the Generation of bodies (as one, once of this Sect said) is not effected, as some conceive of Soules, that is, by Irradiation, or unanswerable to the propagation of Light, without its proper diminution, but therein a proper transmission is made materially from some parts, and Ideally from every one, and the propagation of one in a strict acception, is some minoration of the other. *The Generation of one thing is the corruption of another*, although it be substantially true concerning the forme and matter, is also dispositively verified in the Efficient or Producer."

Although this assertion of Paracelsus may be regarded merely as a case of reversion to the symbolism of the older alchemists, his directions are so detailed and the entire statement is so clear that such an explanation does not appeal to me. Indeed, from the other things that Paracelsus says about putrefaction and its relation to the generation of life, it seems more likely that he accepted such an origin of homunculi as really proved. Since the belief in spontaneous generation survived the time of Harvey, this belief on the part of Paracelsus is no discredit to him, although his statement sounds rather daring.

HARVEY'S ATTITUDE TOWARD GENERATION

Although Willis declared that Harvey wrote his treatise on generation "in the harpess of Aristotle" and "with the bit of Fabricius in his teeth," and Whitman stated that Harvey's conception of epigenesis and of *ex ovo omnia* was that of Aristotle, it seems to me that Harvey's attitude regarding generation may have been quite different after all. It is possible that Aristotle experimented more than the extant records show, but according to these he seldom resorted to it while Harvey often did so. Harvey apparently regarded things far more from a dynamic or functional viewpoint. This is shown by his investigations on the circulation of the blood and by his many experiments on reproduction in mammals. I have not been able to ascertain what materials he used or what mammals he worked with aside from deer, but there is no doubt that he made a serious attempt experimentally to determine the permeability of the uterus and tubes to sexual products. Since the injected masses which Harvey used did not pass into the cavity of the uterus or through the tubes, in animals which he supposed were non-pregnant, he naturally concluded that these organs are impervious to sperm and ova and that the conceptus arises *de novo* in the uterus through a mysterious influence of the sperm, akin to the

influence of the stars upon human destiny. This view was Aristotelian, to be sure.

It seems strange that Harvey, the corypheus of anatomy, as Bulwer called him, could not find the conceptus in the mammalian uterus until two months after mating, and had he had more faith in lenses he would probably have discovered the mammalian spermatozoön and the blood capillaries as well. It is true that his refusal to believe in the existence of lacteals, rediscovered by Asselli in 1622, suggests that he was not open to conviction on all things, but who among us is. Harvey may have been unfortunate also in the animals which he examined for lacteals, and the same thing may have been true of those in which he tried to inject the uterus and the tubes. Harvey may have assumed that the animals, probably deer, were nonpregnant while they may have been pregnant and the injected material hence have been prevented from penetrating into the lumina of the uterus and tubes. He also may have made vaginal injections only.

It seems unlikely to me that Harvey espoused the theory of epigenesis solely upon the basis of embryological experiments and investigation. It is more probable that he adopted it also because of his general attitude toward things biological, which was functional, as stated. To Harvey, as to Aristotle and Heraclitus, things were becoming and never at rest as they were to Permenides and Plato and to others long after that. Even that "abyss of learning," the great Haller, thought that there was no such thing as becoming.

It remains a puzzle why Harvey, to whose observations and experiments on the circulation of the blood the world owes so much, held so many strange ideas regarding generation. Cole suggests that he collected these ideas in the course of many years and did not revise the notes at the time when he seems to have been persuaded by Ent to publish them, and it is certain that if Harvey had resorted more to experiment in connection with generation, he would have found it necessary to reject many of the strange ideas that he entertained and suggested, some of which he himself characterized as fables.

The early existence of a belief in the spontaneous generation of insects and other animals need surprise no one who recalls that the nostrils and heads of living deer and sheep were long known to be infested with larvae and that ants, fish, birds, and so forth were infested both with internal and with external parasites. Mites of various kinds were generally supposed to arise in body filth as animalcules did in putrefying matter. Reference has already been made to the many experiments that Redi did with caterpillars, insects, and putrefying animal and vegetable matter to decide this question, and one cannot doubt him when he says at the beginning of the above-mentioned letter:

"Thus, having recently made many experiments especially in regard to the origin of those living creatures considered, to the present day, by all schools to have been generated by chance, that is spontaneously without parental seed, and being distrustful of myself

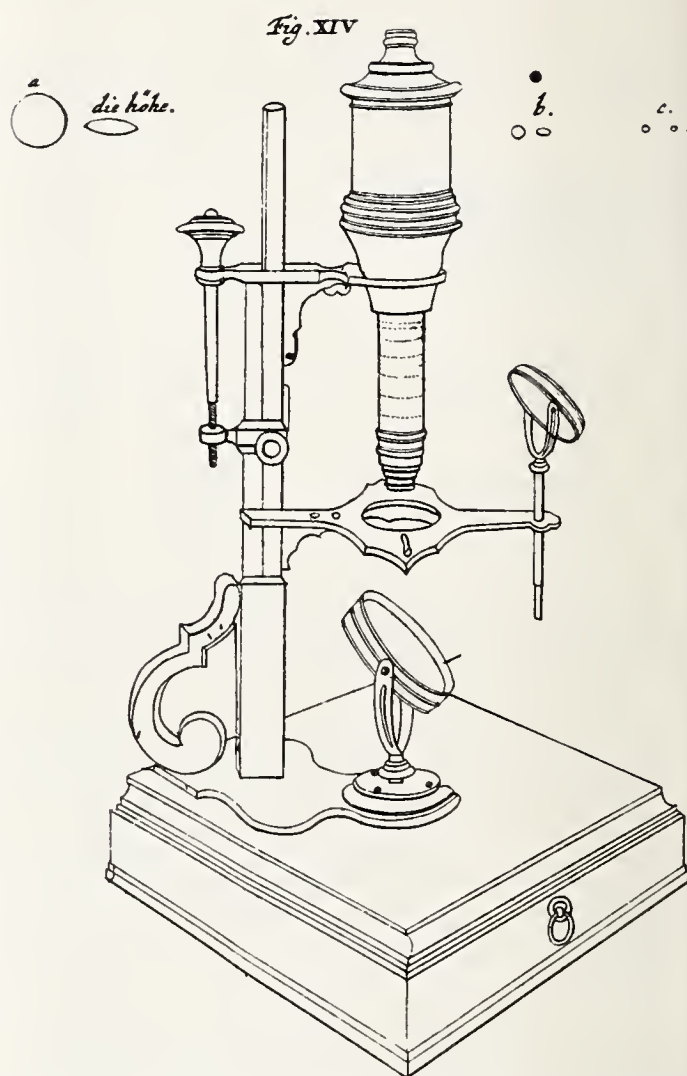


Fig. 2.—Buffon's microscope. (a) The Best lens, (b) Cuff's lens No. 4, (c) an English lens No. 0. The latter was used by Ledermüller and he says that it magnified eighty-six times as high as Buffon's lenses.

it occurred to me that I might have recourse to you, Signor Carlo, as you have graciously given me a place among your closest friends."

VIEWS OF REDI

One cannot read Redi without feeling the highest admiration for him because of his attitude and modesty and his appreciation of his predecessors, such as Harvey. He recorded his experiments in such detail and with such candor that no one need be in doubt regarding his results and he even suggested the repetition of them by others. Redi showed the same candor when speaking of some of the apocryphal things recorded by Father Kircher, although he exclaimed, regarding the latter's conception that dead flies give rise to living ones, "But, oh, how this single experiment must have delighted and elated those persons who fondly imagined that they could recreate man from man's dead body by means of fermentation, or other similar or still more extraordinary processes!" Redi refers to the "folly of the charlatan, Paracelsus, who, impiously, would have us believe that there is a way to create mannikins in the retorts of alchemists." He also refers to "Sir Kenelm Digby, who tried to prove the same by recreating crabs out of their own salts by chemical means." Paracelsus, to whom we owe much for his emphasis on chemicals and their use in medicine, very clearly was overimpressed by the ac-

complishments of the chemists; but he is not alone in this, for a chemist recently predicted that the chemistry of the cell would be simple and a contemporary physiologist declared that physiologists know quite well what life is!

By a series of careful experiments Redi proved that worms (larvae) do not arise out of the "dung" but from the eggs of flies, and he showed that this holds for many other insects as well. When considering the old belief that bees arise from the putrefying carcasses of bulls, he referred to Virgil's lines in which the latter declared that burial of the carcass was not a necessary condition, and then described his own experiments proving that insects do not arise from putrefaction, making many very interesting references to the older literature.

(To Be Continued)

CLINICAL NOTES AND CASE REPORTS

CONGENITAL HEART BLOCK

REPORT OF CASE

By W. A. Wood, M.D.
AND
HOBART ROGERS, M.D.
Oakland

PROVED instances of congenital heart block are sufficiently rare to attract more than passing interest. Yater,¹ in 1929, reviewed twenty-nine cases from the literature and added one additional report. His review does not include a case report by Nicolson, Schulman and Green,² which appeared shortly before his paper was published. Anderson,³ Brandenburg,⁴ Leech,⁵ Sclar,⁶ and Koenen⁷ have each subsequently reported cases. To these we shall add the following case.

REPORT OF CASE

History.—D. P., born October 15, 1929, was referred to us at the age of three months by Dr. E. B. Tiffany. Observation at that time showed anorexia, weight loss, grunting respiration, persistently slow pulse, and a heart murmur as outstanding symptoms and signs.

The father and two other children, age seven and twelve, were living and well. The mother was living and apparently well, but had had, about eighteen months prior to the birth of this patient, an acute rheumatic carditis with pericarditis. Her physician felt that this condition had not entirely subsided when she became pregnant. No instance of congenital malformations were known to have occurred in the family.

The pregnancy was normal except that the mother experienced more nausea, vomiting, and salivation than with her previous pregnancies. The delivery was not remarkable. The birth weight was eight and one-half pounds. Respiration was established without difficulty, and cyanosis was not present. The respiration was, however, noted from the first to have a peculiar grunting character.

Examination.—Examination revealed moderate undernutrition (weight nine pounds ten ounces). There was no cyanosis. The heart rate was only 60. There was a blowing systolic murmur of moderate intensity, best



Fig. 1.—Photograph of D. P., age sixteen months. Note bulging of precordium.

heard over the lower sternum, well transmitted to the left axilla, and less well for a short distance to the right. In the fourth and fifth interspaces, just within the cardiac dullness, a short soft decrescendo murmur could be heard following the second sound. The pulmonary second sound was slightly accentuated. The liver was four centimeters below the costal border. The spleen was not palpable. Roentgenograms showed a rather large globular heart.

Electrocardiograms made at the age of three months and at the age of sixteen months both showed a complete heart block, with right ventricular preponderance. A blood count made at the age of ten months showed 4.9 million red cells and 76 per cent hemoglobin (Sahli).

Nutrition and growth have been approximately normal. The weight at sixteen months was twenty pounds and three ounces, and the length 30¼ inches. Whooping-cough at eight months was well borne. The slow pulse and grunting respiration have persisted. No cyanosis has developed. A definite bulging of the precordium has gradually taken place. There have been no syncopal attacks.

We feel that our patient has, in addition to his complete heart block, an interventricular septal defect. Despite these conditions, the prognosis is, we believe, relatively good.

COMMENT

These thirty-seven cases include sixteen males and nineteen females, the sex not having been mentioned in two instances. In twenty-eight cases the block was complete, and in eight cases it was partial or variable. In one patient (perhaps therefore questionable) no graphic records were obtained. Cyanosis was absent in twenty-three patients, slight in nine, and marked in five. Of the associated congenital defects, patency of the interventricular septum was most commonly found. There is an apparent correlation between the de-

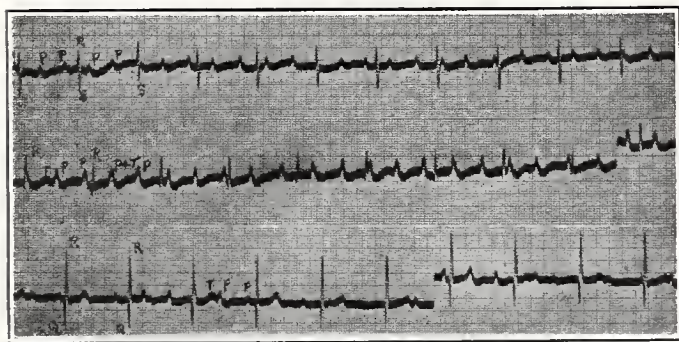


Fig. 2.—Electrocardiogram of D. P., age sixteen months, showing complete auriculoventricular dissociation, auricular rate 138, ventricular rate 58, in Lead II, with right ventricular preponderance.

gree of cyanosis present and the character and extent of the associated defects. The latter seem also to be determining factors in the prognosis. In three cases in which postmortem findings are available the condition has been found to be due to a developmental defect.² Prenatal endocarditis and myocarditis are also theoretically possible etiologic factors. The presence of rheumatic infection in the mother during her pregnancy thus adds interest to the case here presented.

400 Twenty-ninth Street.

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PROCAIN INFILTRATION ANESTHESIA

REPORT OF CASE

By MARTIN I. GREEN, M. D.
San Francisco

INFILTRATION anesthesia with procain hydrochlorid is generally so satisfactory and so free from objectionable reaction on the part of the patient that we are prone to lose sight of the possibility of intoxication occurring in the routine use of the drug in this manner. However, it is unfortunately true that even small doses of procain may cause serious or even fatal poisoning. It is probably true that in most of such patients, the anesthetic solution was introduced directly into the vein; but in some instances it is unlikely that this was true while in others, even if the injection were actually intravenous, the amount of the drug used was so small that the only reasonable explanation for the unfavorable reaction was an unusual susceptibility of the patient. Within the past few months, a case has occurred in our

hospital where it was possible to demonstrate idiosyncrasy to procain, existing to such a high degree that the employment of this anesthetic, even for minor surgery, would have been a dangerous procedure. The following brief report gives the essential features of the case.

REPORT OF CASE

Mrs. C. E. came to the clinic of Green's Eye Hospital on April 9, 1931, because of excessive lacrimation of the right eye, which had persisted over a number of years. Three years previously she had visited another clinic and was given a subcutaneous injection of procain solution (amount and strength unstated), following which she became unconscious and remained in this state for eighteen hours.

Examination showed that the lids of the right eye were normal, except that the canaliculus had been slit. No secretion could be expressed from the sac. The left eye was entirely negative.

Several drops of a solution of cocain hydrochlorid were instilled into the right cul-de-sac and an attempt made to irrigate the lacrimal sac. No solution passed through the lacrimal duct and regurgitation occurred through both puncti.

Because of past history, three minims of two per cent solution of procain hydrochlorid were injected intradermally to test her susceptibility. Almost immediately a general reaction occurred, manifested by pallor, breathlessness, rapid pulse, and finally syncope. Recovery took place in about thirty minutes, but the patient complained of being nervous and shaky for the ensuing week. Later an intradermal injection of a small amount of 1:1000 solution of epinephrin hydrochlorid did not cause any untoward reaction, so that an epinephrin reaction was eliminated.

To open the lacrimal passages, anesthesia was of course necessary. The history of previous violent reaction to procain and our own observation as to the effect of intradermal injection of a very minute amount of the anesthetic eliminated the possibility of using it in this case. Upon consulting a surgical colleague of large experience, the employment of nupercain was suggested; and subsequently the intradermal test with 1:1000 solution of this drug was carried out on the patient with entire absence of toxic reaction. Reassurance being gained by this test, the tissues surrounding the right tear duct were infiltrated with about two cubic centimeters of a 1:1000 solution of nupercain, containing approximately 0.03 milligram epinephrin hydrochlorid. With this most satisfactory anesthesia was secured, and with an entire absence of toxic manifestation.

This case is interesting as illustrating a sensitivity to procain and the possibility of employing a chemically unrelated substance for safe production of anesthesia. Keyes and McLellan (*American Journal of Surgery*, Vol. LX, No. 1, p. 1, July 1930) report two cases where reactions regularly occurred following the use of procain hydrochlorid for caudal block but where nupercain solution producing satisfactory anesthesia did not give rise to any unfavorable symptoms.

It is most definitely not our intention to advise the routine employment of nupercain for infiltration anesthesia in place of procain, for it is quite possible that there are more cases where sensitivity to nupercain and not to procain exists; but this, in our opinion, may be satisfactorily determined by the intracutaneous or subcutaneous injection of a small amount of dilute solution of the drugs in question.

1801 Bush Street.

BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussion invited.

PRECORDIAL PAIN

WILLIAM H. LEAKE, M. D. (1930 Wilshire Boulevard, Los Angeles).—Precordial pain, from the medical standpoint, is of considerable importance as it becomes necessary to determine, in many instances, if the pain is a manifestation of grave cardiac disease or is a symptom of minor importance. Angina pectoris or Heberden's angina is a symptom complex which, when observed by the practitioner, is usually unmistakable. This condition may vary in degree from a simple substernal tightness to an agonizing precordial pain, with radiation to the neck, arms, tips of fingers, and even more distant parts. It is usually accompanied by a feeling of impending death. The electrocardiogram may show no abnormal changes, and at autopsy the clinician is often puzzled by the lack of pathologic findings. It is now conceded by various investigators, however, that many of the hearts studied at autopsy reveal some degree of coronary disease. White states that this holds true in at least 95 per cent of the cases.

Coronary artery disease usually produces pain similar in location and radiation to that of angina pectoris, and the severity of the pain depends largely upon the rapidity with which the closure of the artery takes place. In coronary sclerosis, where the narrowing of the lumen is a gradual process, the pain occurs as a rule on exertion, accompanying emotional disturbances, or following dietary indiscretions. Coronary thrombosis, which practically always occurs in a vessel which has undergone sclerotic changes, may cause a most excruciating substernal pain which radiates to the neck, one or both arms, or to the epigastrium. Fever, leukocytosis, and a localized pericardial friction rub are observed often following coronary thrombosis. Patients with pain referred to the epigastrium or gall-bladder region have been subjected to operation because of the resemblance of the symptoms to an acute surgical condition of the abdomen. The electrocardiogram will usually reveal significant changes in the T wave, and disturbances in rhythm are observed frequently. The symptom complex known as angina pectoris is rarely associated with cardiac arrhythmia.

One must remember that aortitis, especially that of luetic origin, acute pericarditis, any form of organic heart disease with or without congestive failure, coarctation of the aorta, and overexertion of a normal heart may produce precordial pain which at times is extremely baffling to the clinician. Inflammatory conditions and neoplasms of the thoracic cavity are responsible occasionally for pain which may be confused with angina pectoris or coronary disease. Lack of space prevents a

more detailed enumeration of conditions which may bring about precordial pain, but a perusal of a paper by Roberts in a recent issue of *The American Heart Journal* will be extremely enlightening.

In this article the discussion has been confined chiefly to precordial pain in angina pectoris and coronary disease. No attempt has been made to take up in detail any of the other numerous causes of precordial pain.

The management of angina pectoris will not be discussed here, aside from stating that the pain of this symptom complex is usually relieved by nitroglycerin or amyl nitrite. Surgical treatment is of value in selected cases.

The pain of coronary disease responds surprisingly well to drugs of the xanthin group. These drugs are thought to act through vasodilatation of the coronary arteries, thereby increasing the heart's blood supply. On this basis, however, it is difficult to explain the disappearance of precordial pain in patients who later come to autopsy showing inflexible "pipe-stem" coronary arteries. Theophyllin (theocin), theophyllin ethyldiamin preparations (euphyllin, metaphyllin), theobromin calcium salicylate (theocalcin), theophyllin calcium salicylate, and theophyllin sodium acetate are the most useful drugs in this group. In the writer's experience the theophyllin preparations have been more effective than the theobromin group. If no improvement is noted in the course of a few days, their use should be discontinued. Theophyllin may be given in the dose of three grains combined with one-half grain of phenobarbital three times daily. The latter drug prevents excessive cerebral stimulation by theophyllin and acts as a mild general sedative. If gastric disturbance is present the theophyllin preparations may be administered rectally in cocoa butter suppositories. Theobromin calcium salicylate is apparently the most satisfactory of the theobromin group; the dose is seven and one-half to twenty grains three times a day, depending upon the response.

The pain of acute coronary thrombosis requires morphin in maximum amount. One-half grain as an initial dose may be required, and the same amount repeated within two or three hours is often necessary. Patients who suffer from this condition apparently have an increased tolerance for opium and its derivatives. It is unnecessary to add that digitalis, caffeine, and epinephrin should be administered freely if indicated. Should the patient survive the sudden occlusion of the artery, the use subsequently of drugs belonging to the xanthin

group will aid in relieving the precordial pain. Rest in bed for a minimum period of four weeks, preferably six, should be required of the patient in order to prevent rupture of the myocardial infarct. Each patient must be considered as an individual problem, and the use of stereotyped instructions is to be avoided.

* * *

WILLIAM J. KERR, M. D. (University of California Hospital, San Francisco).—Our ideas about cardiac pain are changing rapidly. There are many conditions which give pain in the region of the heart, and to the laity and to many practicing physicians the location of the pain in the region of the heart spells cardiac disease and disaster. There is no doubt in my mind that the pain in coronary occlusion originates in the heart or in the envelopes of the heart. Studies of Capps and his associates some years ago are interesting in that it is shown that pain may originate in certain portions of the pericardium, and we have known for a long time that pericarditis will give a very severe precordial pain. It is my feeling, although I have not been able to prove it by experimental study, that the pain in coronary occlusion is probably associated with the inflammatory process in the epicardium situated over an area of infarction, and that probably the heart muscle *per se* is not the seat of origin of pain stimuli. In those cases where coronary occlusion occurs without pain it is likely that the epicardium is not involved or is not involved at a place where sensory-nerve endings are to be found. We are all familiar with the pain which may occur in the region of the heart in abdominal conditions, especially when the left diaphragm is distended or when there are infectious diseases in the biliary tract, or in the presence of duodenal ulcer. If pain is intense enough it may be widely spread.

The previous discussants have mentioned the chief types of pain which may be confused with pain originating in the heart itself, but I should like to emphasize the importance of two types of pain which frequently lead to confusion. In coronary vascular disease it is not uncommon to find the pain referred to the epigastrium, suggesting to the physician that he is dealing with perforating ulcer, with cholelithiasis, or some other acute abdominal disorder. From time to time such patients are operated upon during the height of their symptoms from coronary occlusion. An examination of the heart at such times will usually show the changes in first heart sound and there will often be associated disturbances in rhythm. An electrocardiogram will in such cases be helpful because it will usually show evidences of disturbances in conduction in the ventricles and alterations in the deviation of the T waves. The other condition which may cause confusion is radiculitis associated with lesions of the spinal column or spinal cord. In the last two years approximately three-fourths of all the patients referred to me for a study of the cardiovascular system and treatment for angina pectoris have had radiculitis on the basis of

hypertrophic arthritis of the spine. I am making some special studies in this field at the present time and am not prepared to give a final answer, but I would like to suggest to other members of the profession that when they have patients who complain of pain simulating angina pectoris, they make it a point to examine these patients from time to time when, in many instances, it will be shown that the next time they have pain it will be perhaps in the right shoulder, in the neck with some stiffness, or in the region of the sciatic distribution. Obviously, then, the burden of proof would fall on those who would make a diagnosis of angina pectoris in such a case. Since we have hypertrophic arthritis of the spine and degenerative cardiovascular disease in the same age period, it is difficult sometimes to make the differential diagnosis.

* * *

PHILIP KING BROWN, M. D. (Southern Pacific Hospital, San Francisco).—Beginning with Heberden's description of what has been known since as angina pectoris, down to the separation by Herrick of a group of cases due to coronary thrombosis, and the division of angina into various groups by Mackenzie, there has been a controversy as to just what should be called angina pectoris. Kilgore contributed to the discussion by an article on heart pain, taking Mackenzie's position that a great deal of it was referred pain or a functional neurosis.

Beginning with the operative work on the cervical sympathetic in 1923 by Dr. Walter B. Coffey and the writer, we have taken great pains to distinguish between what we regard as a primary or essential angina pectoris of the Heberden's type, the attacks being extremely severe and accompanied by the sensation of impending death, produced by effort and abated by nitroglycerin, and attacks often quite as severe and possessing all of Heberden's characteristics, not always produced by effort but associated with disease in other parts of the distribution of the pneumogastric nerve and relieved entirely by the cure of the primary exciting cause. Doctor Coffey took the position in the early period of our study of this condition, which might wisely be followed by others who have done the operation, that he would deal surgically with no case until the medical man was convinced that nothing else could be done to relieve the condition. In the Southern Pacific Hospital at San Francisco there has been a distinct rivalry between the medical and surgical services in the interests of efficiency, and very thorough investigations have been made of all cases of precordial pain.

Attacks were relieved in one case of a woman seventy-five years of age by the removal of the gall-bladder with several hundred uniform size small stones. I doubt whether she ever passed a stone, but I am convinced that her typically anginal attacks were precipitated by conditions that held in her gall-bladder. She has never had an attack since it was removed four years ago. That she is potentially a case of angina pectoris I do not doubt, and that she may have a recurrence

of her attacks is not improbable, but her margin of safety was certainly enormously widened by removal of the gall-bladder.

A man of fifty-five years of age had a coronary thrombosis with pericarditis and effort angina. He was in the hospital three times in two years and never was able to do any work in this interval. On his fourth entry he was practically incapacitated. A study of this patient by Dr. Bernard Kaufman of the cardiological department convinced him that the apical adhesions consequent upon the coronary thrombosis and the fixation of the heart bore some relation to the attacks. That he was right was evidenced by the fact that a left phrenicectomy, raising the diaphragm, relieved the patient entirely and he has been back at work over a year. Two cases of persistent duodenal ulcer have had gastroenterostomies with a very marked improvement in the number and severity of attacks where no improvement had taken place before. In both, sympathectomy had to be done before attacks ceased.

The writer is decidedly of the opinion that too much can be expected of the correction of obviously disturbing conditions which seem to bear upon the precordial pain and we have been doomed to disappointment a great many times. The fact remains, however, that angina pectoris occurs with and without coronary disease and is particularly associated with certain individuals, no matter what the coronary condition, while it may be entirely absent in others with very disturbing coronary disease. This symptom complex must be dependent in all cases having actual coronary disease upon some exciting condition not as yet made clear. It seems possible to lessen the likelihood of attacks by improving the general condition through removal of all sources of infection and irritation, especially in parts supplied by the sympathetic. In no case is this more marked than where the anginal attacks are made more frequent in people addicted to the use of tobacco or who have diabetes, where these attacks practically disappear with the correction of the intoxication.

Finally, after a reasonable trial of the correction of all these conditions associated with severe attacks, we published our experience showing that the left superior cervical sympathectomy affords the only sure relief. There is only one type of heart pain simulating angina that we feel should be ruled out and that is, the pain that arises from an involvement of the vertebral nerves in the upper dorsal segment in osteoarthritis of the spine. We have had several cases referred to us relieved entirely by improving the circulation of this part by physiotherapy and braces or by alcohol injection of the vertebral nerves.

Social Insurance.—One of the very first questions that naturally arises is: Have any of our governmental agencies so conducted themselves in the past as to make it reasonably safe for us to entrust so stupendous a function as universal social insurance to any branch or department? I maintain that most of our local as well as state governments are inefficient or corrupt, and some are both.

Let anyone who doubts the correctness of this statement spend a little time to look around with a critical eye and observe how most local governments, the various departments of the state in which he lives, and the departments of the federal government are conducted, and I am convinced that he will find more inefficiency than he has ever dreamed could exist. If he does not personally know of corruption and inefficiency in government, let him but scan one single daily newspaper regularly for a month in order to be convinced. And what else can one expect who is at all familiar with politics as it has been played and managed in these United States in the year 1931—the manner in which most men secure their nominations and later their elections, and to whom they are beholden when they take office?

We have all seen the statement repeatedly in the public press, but have never seen it successfully refuted, that in many of the political subdivisions of our country only 60 per cent of the taxes collected are effectively spent, and the remainder being frittered away, wasted or stolen. This inefficiency and corruption is due to many causes, of which some of the more important are:

The fact that so far no formula has been discovered according to which the most efficient, honest, industrious, and worthy members of the community can be secured for public office. Nor has there been any method devised whereby spoils, politics, favoritism, pull, nepotism, waste, and graft can be eliminated with even a reasonable degree of certainty. The individual who could solve these two problems would not only be the greatest benefactor of the human race, but the wisest man the world has so far produced. Plato tried to solve this problem twenty-three centuries ago when he wrote his Republic. For a time he actually thought he had found a solution. He prevailed upon the King of Syracuse to adopt his plan and put it into operation. The king tried it for a while, tired of it, and sold Plato into slavery. Some good friends ransomed him. After that he was not so sure that his scheme would work in practice. Things are not much different today from what they were in the time of Plato, only worse—worse, because of the increase in population resulting in larger governmental units, the enormous increase in the number of those exercising the franchise, the increase in the percentage number of ignorant voters, and the ever-increasing astuteness and finesse of our practical politicians.

Inefficiency and corruption is so common that we have become callous to it. We are annoyed by it, we grumble and complain mildly about it; we pay our ever-mounting taxes if we have anything with which to pay, and "let it go at that." It almost seems as though we humans had adopted David Harum's dog philosophy and were applying it to ourselves. He said: "A certain amount of fleas is good for a dog. It keeps him from brooding on being a dog."

The best illustration of governmental muddling in general is to be found in the mess most governments of the world have made of themselves during the past twenty years. As examples, we need but call attention to the virtual bankruptcy of Germany and of Austria, the maladministration in Russia, the revolutions in Spain, China, Central and South America, the dictatorships in Poland and Italy, and when we come nearer home, the lawlessness in the United States, with its murders and kidnaping for ransom; conditions in the city of New York as disclosed by the Seabury investigation; the virtual bankruptcy of Chicago and Philadelphia, and the near bankruptcy of many other governmental units.

Let us study conditions in our own country a little more in detail in order to determine whether it would be wise or even safe to entrust the federal, state and local government, or any one of them, with supervision over the private lives of its citizens.—By Dr. Edward H. Ochsner, *Maine Medical Journal*, February, 1932.

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Leaflet Regarding Rules of Publication.—California and Western Medicine has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this journal write to its office requesting a copy of this leaflet.

EDITORIALS*

1931-1932 C. M. A. PRESIDENTS AND PRESIDENT-ELECT—DR. JUNIUS B. HARRIS, DR. JOSEPH M. KING, AND DR. GEORGE G. REINLE

Retiring President Harris Continues to Serve as Public Policy Chairman.—When he laid down the gavel as president at Pasadena, Dr. Junius B. Harris of Sacramento also transferred his responsibilities as head of the California Medical Association. The House of Delegates continued him in service, however, as one of the councilors-at-large, and the Council retained him as chairman of the Committee on Public Policy and Legislation. He will therefore continue to serve the Association as in the past. Elsewhere in this column have been expressed some words of appreciation of the services which have been rendered by Doctor Harris.

* * *

Doctor Joseph M. King of Los Angeles Takes Over the Responsibilities of the Presidency.—The fellow member who assumed office at Pasadena as the new head of the California Medical Association is Dr. Joseph M. King of Los Angeles. The House of Delegates at Pasadena was con-

* Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Medicine Today column, which follows.

fronted with a request from Doctor King in which he asked that he be relieved of the responsibility of assuming the office of president. Doctor King made this request because of the condition of his health, he feeling that he might not be able to discharge his official duties in such manner as to measure up to the standards he felt should be maintained. His request was not granted by the House of Delegates, because as was well expressed by speakers who rose to speak on the question, the presidency had not been conferred upon Doctor King so much for what work he might do in the future, but rather as a recognition of services rendered the profession over a long period of past years. It is gratifying to know that in response to the expression of sentiments there expressed, that Doctor King consented to take over the duties of the presidential office. His friends and colleagues know that he will not be laggard and have fullest faith that his year as president will mark continued progress in the Association.

* * *

Dr. George G. Reinle of Oakland Is the New President-Elect.—And now for the heir-apparent, whom the members of the California Medical Association at large meet in the person of Dr. George G. Reinle of Oakland. In making its decision to elect Dr. George G. Reinle to the office of president-elect, the House of Delegates selected a colleague who for years has been actively identified with state association organization work, and who in Alameda County has particularly made for himself a warm place of high regard. The Alameda County Medical Society has at all times been an alert and progressive county medical unit in the California Medical Association and this elevation of one of its most beloved sons to become the head of the California Medical Association is a deserved recognition both of the Alameda County Society and of Doctor Reinle. He is cordially welcomed as he assumes his new office.

CALIFORNIA MEDICAL ASSOCIATION ANNUAL SESSION

Pasadena's First Annual Session Was a Success.—The 1932 Annual Session has come and gone. In the future it probably will be referred to more often as the Pasadena than as the 1932 annual session. Such a designation will not be confusing because this was the first annual session ever held in Pasadena by the California Medical Association. It was notable as having had the largest registration of any California Medical Association annual session thus far convened. It will be remembered also for the excellence, not only of the scientific but of the entertainment features. The appealing program of entertainment, which as in the last several years was arranged for the afternoons and evenings to avoid conflict with scientific section activities, was the work of the local committee and of the Pasadena Branch of the Los Angeles County Medical Association. Splendid coöperation was rendered by the

Woman's Auxiliary of the Los Angeles County Medical Association and special credit is due the Auxiliary officers and members for the efficient manner in which their part of the entertainment program was handled. While there may be some who would have annual session proceedings devoted almost entirely to serious consideration of scientific matters, it must be apparent to all that an annual session renders a greater service to the medical profession and to the lay public, when there is in evidence a happy mixture of scientific, business and social activities. Good fellowship and better understanding and acquaintance of physicians from all parts of California, one with another, do not detract from the scientific work of annual sessions. On the contrary these make that work the more attractive and beneficial. In Pasadena, on May 2nd to 5th, these facts were again proved.

Our Pasadena hosts were themselves so enraptured by the pleasure of officially greeting the medical profession of California that they forthwith sent a delegation to the New Orleans session of the American Medical Association with an invitation to the American Medical Association to meet in Pasadena in 1934. From reports that have come to the editor, there are indications that such an invitation will be accepted by the authorities of the American Medical Association. Pasadena has an excellent civic auditorium with many nearby churches for scientific section meetings and with large hotels in close proximity. Transportation facilities to Los Angeles are also excellent. If the American Medical Association comes to Pasadena, it will be a unique experience in demonstrating how the meeting place and entertainment facilities of a comparatively small city can measure up to those of the metropolitan centers in which the American Medical Association has met in recent years. The California Medical Association will be glad to cooperate with the physicians of Pasadena and Los Angeles County if the American Medical Association should decide to meet in Pasadena in 1934.

* * *

Reports of California Medical Association Officers and Committees.—The reports of the officers and committees as presented in the "Pre-Convention Bulletin," which publication is particularly designed for the use of members of the House of Delegates, are reprinted in this number of CALIFORNIA AND WESTERN MEDICINE for the information of the entire membership of the California Medical Association. (See page 424.)

These reports record a year of progress but indicate also the magnitude and importance of some of the economic and administrative problems which confront the California Medical Association. It would aid greatly if most of the California Medical Association members would take the time to glance through these reports, for thereby a better understanding would result among members from one end of the state to the other, on the nature of some of the major problems

which the Association now has under consideration. If we all do our bit in studying these matters there will be greater assurance of better plans of procedure in solving our problems, and of greater cooperation in carrying through such policies as for the time being, may be deemed best for the interests of all concerned.

* * *

The Report of the Committee on Public Policy and Legislation.—Attention is particularly called to the report of the Committee on Public Policy and Legislation in which are enumerated the long lists of senate and assembly bills presented at the last session of the California Legislature. The perusal of those lists at once indicates how heavy is the burden that rests on those whose duty it is on behalf of the Association to carefully watch proposed legislation in its course through the California Assembly and Senate. (See page 434.)

It is probably true that only a small number of California Medical Association members appreciate the increased work which is thrown upon the officers of the Association when our state legislature is in session. But all members of the Association should realize how much damage could be done to the interests of the medical profession and of the public health from obnoxious legislation. If such understanding were more in evidence, then greater and more active interest would be displayed by component county medical units and the members thereof in the primary election run-offs of the candidates for the California Assembly and Senate. This fall such a state election will be held. It is not too early for officers of county medical societies to meet and make plans to learn what are the qualifications and backgrounds of candidates who will seek positions in the next legislature. It stands to reason that if we are indifferent to such candidates when they are aspirants for office, then those of such who are successful and who have received the support of interests antagonistic to the best public health interests, will not only feel that they are not obligated to be gracious to our profession and what it represents, but may be found in the camps in which vicious and malign plans are directed against scientific medicine. Without engaging in sordid politics, members of the medical profession should take a real, and if possible, an active interest in civil politics—at least as regard the state legislature, since that is the body that can most easily endanger proper public health standards, and all that is meant thereby.

* * *

The Status of a Qualifying Certificate Law for California.—The attention of California Medical Association members is also directed to the comments concerning the desirability of a "Qualifying Certificate Law." (See page 439.)

Unfortunately, such a law to be really effective in California should be enacted by initiative vote of the people. To place such an initiative petition on the November California ballot would require more than ninety thousand signatures, and the estimated cost of securing such a number of

authenticated signatures would require a sum of about one hundred and ten thousand dollars. To raise such a sum in days like the present is quite out of the question. The project of a Qualifying Certificate Act, therefore, must lie over for future decision. It will be interesting to note what new cults will propose examining boards and licensure through proposed laws which will be submitted to the California Legislature, which will convene in January, 1933. It will be strange indeed if a several of such are not brought to the front.

* * *

The Address of Retiring President Harris.—In last month's CALIFORNIA AND WESTERN MEDICINE was printed the address of the retiring president, Dr. Junius B. Harris of Sacramento. That address was received just as the May CALIFORNIA AND WESTERN MEDICINE was about to go to press, and for that reason it was not possible to comment thereon in this column.

The title of Doctor Harris' address was "Activities of the California Medical Association During 1931." One might justly think that his address should be read by every member of the California Medical Association because it not only shows what has been accomplished by the California Medical Association, but because it also reflects in good part somewhat of the special work done by a colleague who for years has given of himself generously and without stint to do all that was humanly possible in the legislative and executive halls at Sacramento to safeguard the interests of the public health and the medical profession. Doctor Harris' splendid and efficient service in these matters, given by him out of love of our profession and at the sacrifice of personal interests, entitles him to the kindly regard of all members of the California Medical Association. It is hoped that California Medical Association members will take the small amount of time to read Doctor Harris' comments on the activities of our State Association. The time so given for such perusal is as nothing compared to that which he has given to our interests, on occasions without number. His is a message of importance and we should all be acquainted with its purport. You are urged to read it if you have not already done so.

In passing, attention may be called to the paragraphs in Doctor Harris' address dealing with medical legislation wherein he outlines the approach and attitude of physicians in civic affairs. It may be of interest to California Medical Association members to know that at the May New Orleans session of the American Medical Association one committee report was brought in, in which was advocated or implied a quite different approach in political matters. Doctor Harris as the titular head of the California delegation in the American Medical Association House of Delegates, and with the support of his fellows, opened the discussion on that issue and as a result the debatable policies included in the report, were, by vote of the A. M. A. House of Delegates, deleted therefrom.

Next Annual Session to Be Held at Del Monte. In bringing these comments on the Pasadena annual session to a close, mention should be made of the place of the next annual meeting.

The Council recommended, and the House of Delegates confirmed the selection of the Hotel Del Monte, in Monterey County, as the place for the 1933 annual session. Past sessions at the Hotel Del Monte have always been most successful. Why not make a mental resolve now that you will more than try to be in attendance when the California Medical Association meets on April 24-27, 1933, at the Hotel Del Monte? Few places in California are more attractive than the Monterey district, and the facilities for both scientific meetings and out-of-door enjoyments are excellent. Attendance will be much worth while.

COMMENT ON THIS AND THAT

This Year's California Medical Association Clinical and Research Prize Awards.—The Pasadena report of the Committee on the California Medical Association Clinical and Research Prizes will be found on page 439.

It will be noted that the number of papers entered in the contest this year was twelve, a considerable increase over the figures of previous years. It is to be hoped that the annual session of 1933 will see as large or an even larger number of papers submitted for the two prizes of one hundred and fifty dollars each, which the California Medical Association each year offers to its members. In addition to the cash prizes, the two successful contestants receive engrossed and framed certificates of award.

CALIFORNIA AND WESTERN MEDICINE joins the Committee on Clinical and Research Prizes in urging members who can do so, to submit papers for consideration in 1933. Papers can be read at a section meeting and still be entered for the prize contests, all entries in such form being held as confidential. Only the names of successful contestants are given publicity.

Members of the Association are urged to enter papers for these prizes. To the successful contestant there is a special pleasure in the fortunate result and the money stipend and the certificate of award. But the big reward is shared by each contestant who, in working up his research or clinical study, gives himself the benefit of the keen mental effort and training which must be used in outlining and developing such a paper. Appeal is especially made to younger members of the profession on our hospital and medical college staffs to give consideration to these prizes. The Association has committed itself to the plan of such annual prizes. It would be a happy consummation if each year witnessed an increasing interest in these two prizes, one for studies on a research topic, and the other for investigations on a clinical problem. In the official notices of the California Medical Association column of this number of CALIFORNIA AND WESTERN MEDICINE will be found the rules regarding prizes. (See page 460.)

Of the twelve papers submitted this year, the selections of the Committee on Prizes as reported by Dr. George Dock were as follows.

The Research Prize:

Awarded to Dr. Harold L. Thompson of Los Angeles, who under the nom de plume of "I. Guthrie Bayard" submitted a paper having the title, "Resection of the Pylorus." This paper is printed in this number of CALIFORNIA AND WESTERN MEDICINE, page 383.

The Clinical Prize:

Awarded to Doctors Norman J. Kilbourne and Charles J. Murray, both of Los Angeles, who under the nom de plume "Epictetus" submitted a paper having the title, "Researches in New Solutions for the Injection Treatment of Hydrocele-Results as Compared with Operation." This paper will be printed in the July CALIFORNIA AND WESTERN MEDICINE.

* * *

Doctor Pope Resigns as Associate Editor.—In the minutes of the last meeting of the Council held at Pasadena (see page 457) are recorded some resolutions of appreciation for the services rendered by Dr. Emma W. Pope, who requested to be relieved of the duties of associate editor of CALIFORNIA AND WESTERN MEDICINE. Doctor Pope assumed the position of co-editor with the present editor when the death of the late Dr. William E. Musgrave on March 9, 1927, necessitated a new editorial staff. The resolutions of appreciation presented in the Council were unanimously adopted. In conformity with the policy of CALIFORNIA AND WESTERN MEDICINE to have an associate editor to represent each of the constituent state associations affiliated with CALIFORNIA AND WESTERN MEDICINE, Doctor Pope, as secretary-treasurer of the California Medical Association, will continue on the editorial staff as associate editor for California. The editor here wishes to express his personal appreciation of the coöperation which has been given him by Doctor Pope in the editorial work of the last several years.

* * *

California Medical Association Resolutions Presented to the American Medical Association.—At the New Orleans meeting of the American Medical Association, the California delegates submitted three resolutions to the A. M. A. House of Delegates, as follows:

One resolution requested the Board of Trustees to make a special investigation of the Cuban health societies. The February 1932 number of CALIFORNIA AND WESTERN MEDICINE, page 116, gave a discussion of those societies, and suggested the need of accurate information in regard thereto which could be submitted to the constituent state medical associations of the American Medical Association. We understand that the matter was referred to the American Medical Association Bureau of Economics. We can think of no legitimate reason why the necessary funds should not be allocated to permit a comprehensive study of

the significance of these Cuban health societies, so that a report may be made thereon to the American Medical Association and its constituent state associations at or before the next annual session of the A. M. A.

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A second resolution suggested to the House of Delegates the desirability of having the American Medical Association bring out in volume form each year the reports which appear from week to week in the medico-legal column of the *Journal of the American Medical Association*. The purpose of that resolution was to provide this information, which could be so valuable to the medico-legal bureaus of constituent state medical associations, in the form of volumes with proper indexes and cross references, so that the contents could be more readily available to the legal representatives of constituent state associations. Under the existing system the information is gathered and properly compiled, but can hardly be said to be easily available to those to whom it could be of great service. A small additional appropriation by the A. M. A. Board of Trustees would increase many times the value of this activity of its Medico-Legal Bureau.

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A third California resolution was presented to the Council of the California Medical Association by the C. M. A. Section on Pediatrics. Request was made therein that the A. M. A. Section on Pediatrics, the American Association of Medical Milk Commissions and the Certified Milk Producers' Association of America be requested "to oppose the certification of soft curd milk, and of milk containing added vitamin or mineral content."

The purpose of the resolution was to prevent improper exploitation of such types of certified milk at this time. For up to the present, many physicians believe that the value of such soft curd milk, and of milk with added vitamin or mineral content has not been sufficiently demonstrated. Premature newspaper publicity by certified dairies producing and selling such special certified milk could work great harm to certified milk if later investigation proved statements made at the present time, to have not had sufficient warrant in fact.

New Concentrate of Liver for Use in Pernicious Anemia.—An important advancement in the treatment of pernicious anemia has been announced by Dr. William P. Murphy, of the Harvard Medical School, who has applied his treatment successfully at the Peter Bent Brigham Hospital in Boston. The solution developed by Dr. Murphy is seventeen times as powerful as liver and more than seven times as concentrated as any liver concentrate now available. The solution, a highly concentrated liver extract, often produces marked improvement within from thirty-six to forty-eight hours after the first injection, and two to three injections may produce recovery. The solution is injected into the muscles and injections are necessary only at intervals of one to three or more weeks. Another important advantage of the newer treatment developed by Dr. Murphy is the reduction of the cost to the patient of from forty to eighty per cent. Dr. Murphy believes that this new solution may be beneficial in the treatment of other blood diseases.—*Journal of the American Medical Association*, March 26, 1932.

MEDICINE TODAY

This department of California and Western Medicine presents editorial comment by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to every member of the California, Nevada and Utah Medical Associations to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

Australian Versus American Poliomyelitis.—All who have worked with poliomyelitis are agreed that monkeys convalescent from a single intracerebral inoculation with the living virus are almost absolutely immune to reinfection, regardless of the source or virulence of the test material. This general experience has led to the assumption that, while different outbreaks of this disease admittedly vary in severity and symptomatology, they are all caused by a virus of the same antigenicity or immunochemical specificity. Current attempts at specific therapy are largely based on this assumption. That this assumption is premature is indicated by recent studies by Doctors Burnet and Macnamara of Melbourne, Australia.* These investigators studied a local virus isolated by them from a fatal case with typical symptomatology and autopsy findings. They allege that intracerebral inoculation of monkeys with this virus gives the classical picture of an almost absolute immunity against the homologous strain, but no appreciable immunity against the usual strain studied by American investigators. Confirming this result, they allege that absolute immunity to the American strain is accompanied by no appreciable increase in resistance against the Australian virus.

If these alleged results are confirmed, poliomyelitis must be regarded by future clinicians not as a specific infection, but as a symptom complex. Preliminary determination of specificity must precede specific therapy.

Stanford University.

W. H. MANWARING,
Palo Alto.

Bacteriophage in Pyodermic Skin Lesions. One of the most fascinating immunologic principles recently introduced in therapeutics is the bacteriophage, or as commonly called, "phage." Briefly stated the salient facts known about the 'phage are: The 'phage is a phenomenon, discovered by Herelle, of the lysis of bacteria by an infravisible agent of unknown nature, regenerating and multiplying at the expense of the bacteria dissolved under its action. The precise nature of it, whether it is a living virus or ferment is unknown. The most common source of the 'phage is a sewage which contains a rich mixture of 'phages. The theoretical advantage of the 'phage is that it seems entirely harmless to the patient. So far 'phages have been isolated for the colon, typhoid, dysentery and diphtheria groups and for staphylococci, but not yet for streptococci.

The technique of 'phage therapy in pyodermic skin lesions consists in hypodermic injections in

and about the lesions and in local applications to the lesions. The 'phage should be tested for lysis on the cultures obtained from the skin lesions. There are three types of reactions that are observed:

1. A local reaction at the site of the injection (redness, pain, and edema);
2. A local reaction at the site of the skin lesion;
3. A systemic reaction.

'Phage therapy has naturally attracted the attention of clinicians in various specialties. The clinical reports of the use of the 'phage in isolated dermatologic cases have been published by Alderson and Crutchfield. Recently a clinical report of the use of the 'phage in a series of one hundred and eight pyogenic skin lesions was made by Cipollaro* of New York. The series consisted of sixty-seven cases of furunculosis, all of which responded well to 'phage treatment, five cases of carbuncles which also responded well, and twenty-eight cases of sycosis vulgaris of which only seven failed to improve. The cases of acne vulgaris have failed to show any improvements, thus differing in results from those reported by Alderson in cystic acne.

In spite of the unusual attractiveness of the premises on which the rationale of the 'phage therapy is based, there are at least two factors which militate against the clinical popularity of the 'phage therapy. The first are the technical difficulties in obtaining it and a high degree of bacteriologic competence necessary for its making and testing. The second is that, for reasons unknown at present, different strains of the 'phage vary greatly in lysing power; this may account for the variability of the results at the hands of different observers.

The safe criterion and guide in the evaluation of the therapeutic efficiency of the 'phage in pyodermata would be its comparison with the older established methods of treatment. Viewed from this angle the therapeutic value of the 'phage in pyodermata must be somewhat discounted due to the fact that pyodermata, as a clinical group, do not present great therapeutic difficulties.

Superficial pyodermata react promptly to a large number of antiseptic applications including aniline dyes. Ultra-violet light offers an important supplementary agency, both local, bactericidal and in raising systemic resistance, and immunity.

The deeper infiltrating pyodermata such as furuncles, carbuncles, ecthyma, erysipelas, and pyogenic lymphadenitis respond well to dry heat poultices, carbon light, x-ray, vaccines, and cold surgery.

* Burnet, F. M., and Macnamara, J.: Immunological Differences Between Strains of Poliomyelitis Virus, *Brit. J. Exper. Path.*, 12:56 (April), 1931.

* Cipollaro, C., and Sheplar, A.: Therapeutic Uses of Bacteriophage in the Pyodermias, *Arch. Dermat. and Syph.*, 25:280, 1932.

In view of this the therapeutic showing of the 'phage in pyodermata at present is not definitely conclusive nor striking. At the best it is an additional therapeutic agency of great promise and potential value, but not yet certain of the positive results. Yet the 'phage offers an irresistible immunologic appeal based on an attractive hypothesis of fighting bacteria with bacteria.

This fascinating psychologic background will undoubtedly prompt many investigators and clinicians to attempt new laboratory and clinical studies until its full immunologic and therapeutic value will be established. In the meantime it is to be hoped that the further improvement and simplification in technique will bring 'phage therapy to the level of the clinical procedure within reach and competence of an average practitioner.

1930 Wilshire Boulevard.

MOSES SCHOLTZ,
Los Angeles.

Note on Hemoglobin Formation and the Iron Reserve.*—The recent work of many investigators (Hart, Elvehjem, Beard, Myers, Williamson, etc.) has demonstrated the value of "food iron" in building up hemoglobin during and after nutritional anemia. It has also been shown that other elements are important in facilitating or "catalyzing" the process whereby the iron is utilized. Of these other elements, copper is probably the most efficacious. In fact, the effectiveness of liver extract must be referred to its high copper as well as high iron content.

It has also long been known that there exists in the liver and spleen of mammals considerable iron, presumably the residue of hemoglobin breakdown. According to the classical conception, the hemoglobin in the worn-out corpuscles is split into heme and globin. The latter passes into the blood stream and the former undergoes a decomposition which results in the storage of the iron moiety while the balance of the molecule is discharged from the liver in the form of bile pigments. The iron then forms a reserve capable of use in regenerating the lost hemoglobin, a reserve which may be seriously depleted should a condition of anemia occur in the animal. There are, therefore, two possible sources of iron in recovery from anemia, the fresh supply in the food, and the reserve in the liver and spleen. Since it is established beyond doubt that copper facilitates the utilization of the food iron, the question arises whether it also assists in the utilization of the reserve iron.

Experiments already reported from this laboratory contribute to the answer to this question (Cook and Spilles, 1931). Rats were fed varying proportions of copper and iron, and the effect of such diets on the splenic iron determined. When the food iron is deficient it would be expected that the reserve in the spleen would be drawn on

extensively and therefore, after a few weeks, would be relatively low. Such is indeed the case. But when considerable copper is fed to the animals in conjunction with very little iron, the iron content of the spleen is much less than it is when copper is absent from the diet. Furthermore, when the copper is absent, the addition of large quantities of iron do not appreciably increase the splenic iron, but, on the other hand, when the dietary copper is high the addition of iron in the food is correlated with a large increase of iron in the spleen.

A possible interpretation of these results is as follows. Copper facilitates the transformation of splenic iron into a form which can be used in building new hemoglobin, thus making more available than otherwise the splenic iron reserve. This possibility is indicated by the greater withdrawal of the reserve when copper is high but iron is low in the diet. Under such adverse conditions the iron reserve is the sole remaining source of the metal for hemoglobin regeneration.

We know that copper, likewise, facilitates the utilization of food iron. Therefore as the food iron is increased from a low level in the presence of an adequate supply of copper, it comes to constitute the primary source for hemoglobin manufacture and the necessity for drawing on the splenic iron reserve disappears. But at the same time blood destruction is proceeding with a consequent continuous accumulation of iron in the spleen. Thus the needs of the animal are supplied from the food and the reserve is allowed to increase indefinitely.

Apropos of these considerations, it is worth while stressing two features of the situation, not because they are new but because they deserve emphasis beyond that which they have received in current discussion.

1. Copper (and probably other metals as well) facilitates the utilization of *both* dietary and stored iron, and it is possible that the same mechanism, as yet undiscovered, is operative in both cases.

2. Assuming adequate copper (or other metals) in the diet, there is a delicate balance between the two sources of iron supply, depending upon the quantity of iron present in each at a given time. This is in the sense that the food iron is the primary source and the reserve iron the secondary.

University of California.

S. F. COOK,
Berkeley.

Normal Variations of Erythrocyte Values in Women.—Smith and Prest studied two groups of subjects, the first having a normal and the second, a lower number of erythrocytes. The total number of cells, total hemoglobin content and total volume per cent were significantly higher in the normal than in the low groups, but the estimated mean corpuscular volume, mean corpuscular hemoglobin, and mean corpuscular hemoglobin concentration remained constant. There were no significant diurnal variations in total number of cells, total hemoglobin content, total cell volume, estimated mean corpuscular hemoglobin concentration.—*American Journal of Physiology*, and *Journal of the American Medical Association*, Vol. 98, No. 17.

* From the division of physiology, University of California Medical School, Berkeley, California.
* Abstract of remarks made at the 1932 annual session of the American College of Physicians.

TRANSACTIONS OF THE SIXTY-FIRST ANNUAL SESSION CALIFORNIA MEDICAL ASSOCIATION

PASADENA, CALIFORNIA, MAY 2-5, 1932

I.—Minutes of the House of Delegates; II.—Reports of Officers; III.—Minutes of the Council;
IV.—Digests, Executive Committee Minutes.

HOUSE OF DELEGATES

Minutes of the Twenty-Eighth Meeting of the House of Delegates of the California Medical Association

First Meeting of the House of Delegates at the Sixty-First Annual Session

Held in the Administration Room, Hotel Huntington, Pasadena, California, Monday, May 2, 1932, at 8 p. m.

I. **Call to Order.**—The meeting was called to order by the Speaker, Edward M. Pallette of Los Angeles

* * *

II. **Report of Speaker on Personnel of Credentials Committee and Two Reference Committees.**—The Speaker announced that three committees of the House of Delegates had been appointed: A Committee on Credentials, consisting of George G. Reinle of Oakland (chairman), William H. Kiger of Los Angeles, and Harry E. Zaiser of Orange; a Reference Committee on Reports of Officers and Standing Committees, consisting of Percy T. Phillips of Santa Cruz (chairman); Alson R. Kilgore of San Francisco and Harry Wilson of Los Angeles; a Reference Committee on Resolutions and New and Miscellaneous Business, consisting of William R. Molony of Los Angeles (chairman); Irving S. Ingber of San Francisco, and Benjamin W. Black of Oakland.

* * *

III. **Report of the Credentials Committee.**—George G. Reinle, chairman of the Credentials Committee, then submitted the following report:

To the Speaker and the House of Delegates:

Your Committee on Credentials begs to report that it has checked the total number of delegates and alternates that each component county society is entitled to and that those delegates and alternates appearing in the official printed list, hereto attached, and who have been certified by the president and secretary of each respective component county society, are entitled to seats in the House of Delegates, excepting four alternates whose names are checked and who have not complied with the necessary regulations entitling them to seats in the House of Delegates.

Respectfully submitted,

George G. Reinle, *Chairman.*

On motion duly made, seconded and unanimously carried, the report of the Credentials Committee was adopted.

* * *

IV. **Roll Call.**—The secretary called the roll; one hundred and nine members of the House of Delegates, consisting of officers, delegates, and alternates, were seated and the Speaker declared a quorum present.

* * *

V. **Report of the President.***—The Speaker stated that the next order of business was the report of the president.

Junius B. Harris, president, read a telegram received from the Honorable James Rolph, Jr., regarding new appointments to the State Board of Medical Examiners. Doctor Harris then presented the following report:

To the Speaker and the House of Delegates:

Your president has visited the societies of Humboldt, two joint meetings of Mendocino, Sonoma, Marin, Napa and Solano counties, Placer, Nevada,

* Editor's Note.—For reports of officers and committees not included in the text of these minutes, see page 424.

Sierra, El Dorado, Yuba, Sutter, and two Northern District society meetings, where talks were given on organization work, legislation, and public policy; he has twice addressed the San Francisco Medical Society by request, addressed the joint meeting of the Northern and Southern Orthopedic Societies at Los Angeles by request; has given an address of welcome to the American College of Physicians in San Francisco and has addressed the Woman's Auxiliary to the Sacramento Society for Medical Improvement.

He found an awakening interest in the subject of medical legislation and in questions of public relations, especially the business side of medicine. Your president feels that the activities of the Department of Public Relations will be keenly watched by the membership at large and is of the opinion that the creation of such a department is welcomed and the work will be given hearty and state-wide coöperation and response.

The year has brought your president the opportunity to participate in many happy events, the pleasant advantage of meeting so many of the splendid men in our profession, a remarkable power to convert banquet food into an assimilable form, a challenge by a naturopath for a debate on "Naturopathy Versus Allopathy" in any large hall in San Francisco, an invitation to fisticuffs from a 75-year-old nature healer; also four "sure cures" for rheumatism sent in by lay cranks and the opportunity, for a price, to learn the secret of ingredients of an infallible Indian cure for cancer.

In all it has been a wonderful year, crammed with many joys, the memories of which will for a lifetime remain with your president.

Respectfully submitted,

Junius B. Harris, *President.*

* * *

The Speaker announced that the report of the President would be referred to the Reference Committee on Reports of Officers and Standing Committees.

* * *

VI. **Report of the Council.**—The Speaker stated that the report of the Council would be presented by O. D. Hamlin, chairman. Doctor Hamlin then presented the following report:

To the Speaker and the House of Delegates:

The report of the Council will touch briefly on the conditions of the California Medical Association and the work of the Council since the last annual session.

MEETINGS

Beginning with the reorganization meeting, April 30, 1931, the present Council has held four meetings throughout the year at which the average attendance was 95 per cent. Three of these meetings were at San Francisco and one at Pasadena. To these must be added the four meetings which will be held during the present session before the existing Council completes its term, making a total of eight Council meetings.

Six meetings of the Executive Committee have been held in the interim of sessions of the Council at the office of the Association, Four Fifty Sutter Street, San Francisco.

FINANCES

The auditor's report of the finances show an opening balance on January 1, 1931, of \$104,503.85 and a closing balance December 31, 1931, of \$90,038.80, and an actual gain of \$10,534.95. The seeming discrepancy is accounted for by the transfer, under authorization

of the Council on May 23, 1931, of \$25,000 of the funds of the California Medical Association to the corporation "Trustees Of The California Medical Association." The combined value of these two accounts totaled \$115,038.80.

The Council reported last year that "The corporation 'Trustees Of The California Medical Association' having been organized pursuant to provisions of the Constitution and by resolution duly adopted by the House of Delegates at the meeting at Coronado on May, 1929, the Council and the officers of the Association believe it advisable to and will transfer to such holding corporation from time to time such funds of the Association as are not needed for the conduct and operation of its affairs, making due allowance for a safe margin for contingencies."

In view of the activities of the new Department of Public Relations, the Cancer Commission and other committees which may require additional funds, the Council recommends to the House of Delegates that the annual dues for 1933 be fixed at \$10.

Among the many problems that have been considered by the Council are the ownership of x-rays, the use of county hospitals by other than indigents, the need for more adequate ambulance service, and the problem of medical service for the low-salaried man.

OWNERSHIP OF X-RAYS

A decision has been rendered in the State of Michigan determining that x-ray films are the "property of the hospital involved." If such a decision were obtained in California, it would eliminate a great deal of controversy and settle an important question of great interest to the members of the profession.

COUNTY HOSPITALS

The use of county hospitals by other than indigents has been the source of trouble in several counties of California. The plan in use in San Diego and Alameda counties has been recommended to all component societies for consideration.

AMBULANCE SERVICE

The need of more adequate ambulance service to handle motor-vehicle accidents was brought to the attention of the Council by the chief of the highway patrol. The Council referred the need to the various county societies for action through the supervisors with a resultant improvement of conditions in several sections of the state.

The report of your president, Dr. Junius B. Harris, this morning before the first general session on "The Activities of the California Medical Association During the Past Year" gave a full and comprehensive picture of many important undertakings of your Council and Executive Committee.

The Department of Public Relations and the Cancer Commission of the Association are two outstanding activities of the Association.

THE DEPARTMENT OF PUBLIC RELATIONS

Through a resolution passed at the last House of Delegates, the Department of Public Relations was formed.

The chronological order of the various steps that have been taken by the House of Delegates, the Council, the Special Committee appointed by the Council, and the Executive Committee will be given in full by Dr. Walter M. Dickie, director of the Department of Public Relations, in his report tonight. Doctor Dickie will also outline the work the department has already accomplished and that contemplated for the coming year.

CANCER COMMISSION

Through a second resolution passed at the 1931 House of Delegates a Cancer Commission was established with nine members appointed by the president. The Commission was furnished offices in the Four Fifty Sutter Building in conjunction with those of the Department of Public Relations.

The report of the Cancer Commission is published in the *Pre-Convention Bulletin* of which each member of the House of Delegates has a copy, and shows the accomplishment of a vast amount of work.

MEDICAL LIBRARY BILL

One of the bills in which the California Medical Association took most interest was the Medical Library Bill.

The Council on September 26, 1931, was notified that the Medical Library Bill had been passed by both houses and signed by the Governor. Even after passage much delay was caused by contested technicalities which were finally overcome. Funds in the amount of \$43,000 are now available for use by the regents of the University of California for the purchase of valuable medical journals and the establishment of a packet service for physicians throughout the State of California.

The services of Miss Van Zandt have been secured as librarian. Miss Van Zandt is explaining the Library service to interested members in the Scientific Exhibit Section.

The Legislative Committee worked indefatigably for the passage of this bill, and that it is now passed and effectively in operation is due to its constant vigilance.

HEALTH SOCIETIES IN CUBA

The problem of health associations in Cuba was brought to the attention of the Council by the editor and the following resolution was recommended for presentation to the House of Delegates of the American Medical Association by the California delegation:

Whereas, The development of so-called "Hospital and Health Insurance Societies" has taken on so great a development in Cuba that the standards of medical practice seemingly have been seriously endangered through such organizations; and

Whereas, It is desirable that full and accurate information should be placed at the disposal of the medical profession of the United States concerning these Cuban organizations because in them there is an expression of the dangers which confront medical practice through the establishment of such institutions; now therefore be it

Resolved, By the Executive Committee of the California Medical Association that the California Medical Association Council be requested to instruct the delegation from this constituent state association of the American Medical Association, to present this resolution to the American Medical Association House of Delegates at its next annual session at New Orleans; and be it further

Resolved, That the recommendation be made to the American Medical Association House of Delegates that, through appropriate action, steps be taken by the American Medical Association to secure full information concerning these Cuban so-called "Health and Insurance Societies" and clubs, inasmuch as such information could be of great value to organized medicine as represented by the American Medical Association and its constituent state units.

PROBLEMS REFERRED TO STANDING COMMITTEES

Matters that could properly be referred by the Council to the various Standing Committees were so referred and will not, therefore, be included in the report of the Council. These problems are brought to your attention through the reports of Standing Committees published in the *Pre-Convention Bulletin*.

CLINICAL AND RESEARCH PRIZE COMMITTEE AWARDS

Twelve papers were submitted this year in the annual prize contest. The Committee on Clinical and Research Prizes recommended that the prize for experimental work be given to the paper entitled "Experimental Pyloric Resection," written by Harold L. Thompson of Los Angeles.

The committee recommended that the clinical prize be awarded to the authors of the paper "Hydrocele," written by Norman J. Kilbourne and Charles J. Murray, both of Los Angeles.

SECTION ON PHYSICAL THERAPY

Because of the number of scientific sections already existing in the Association (twelve), and the fact that physical therapy is a therapeutic aid which is invoked in many fields of medicine, all of which are, or can be, covered by the existing sections, the Council recommend to the House of Delegates of the California Medical Association that at this time no section of physical therapy be created.

Respectfully submitted,

O. D. Hamlin, *Chairman.*

The Speaker announced that the report of the Council would be referred to the Reference Committee on Reports of Officers and Standing Committees.

* * *

VII. Report of the Auditing Committee.—At the request of the Speaker, T. Henshaw Kelly, chairman of the Auditing Committee, submitted the following report:

To the Speaker and the House of Delegates:

The Auditing Committee has supervised the expenditures of the California Medical Association during the year 1931 as required by the Constitution and By-Laws, and the books of the Association have been audited by Hugh Ross, public accountant, of San Francisco, who states "that the books of account were audited and found correct."

Copy of the complete report will be on file for the inspection of members at the office of the Association in San Francisco and at headquarters at the Hotel Huntington during the annual session in Pasadena.

The income from dues in 1931 was \$49,015 of which \$9,803 were allocated to CALIFORNIA AND WESTERN MEDICINE upon the basis of \$2 as the yearly subscription price. This is an increase of \$572.50 in dues received over 1930.

Interest and miscellaneous income amounted to \$6,562.45, bringing the total income of the Association, exclusive of CALIFORNIA AND WESTERN MEDICINE, to \$55,577.45. Total expense charged against the California Medical Association, including the allocation of dues to CALIFORNIA AND WESTERN MEDICINE, was \$41,515.89, leaving a gain for the year transferred to surplus of \$14,061.56.

CALIFORNIA AND WESTERN MEDICINE suffered from the depression by a reduction of its income from advertising space in the amount of \$3,509.54, the actual figures of advertising income for 1931 being \$33,561.19, which with subscriptions amounting to \$9,803 allocated from dues, and other subscriptions in the amount of \$2,637.50 and miscellaneous income of \$180 gave a total income of \$46,181.69. Expenses were \$49,708.30, leaving a loss for the year to be transferred to surplus of \$3,526.61.

This leaves a gain for the year in all the operations of the California Medical Association, to be transferred to surplus, of \$10,534.95.

This is a very satisfactory saving, but with the expansion of the activities of the Association it cannot be maintained and, in the opinion of the Auditing Committee, should not.

The Auditing Committee feels its responsibility to the members of the California Medical Association, whose money it watches disbursed, and again the committee desires to call the attention to the House of Delegates to the present situation.

The expenditure of every dollar is of importance to most physicians today, and the committee is of the opinion that it has not discharged its obligation until it points out again that certain expenses of the California Medical Association are going to increase rather than decrease, and that now the indiscriminate expenditure of funds is a very unwise procedure.

To the end that every dollar of money spent will give an adequate return, the committee recommends that a special survey be made of all of the customary expenditures of the Association, to determine their justification and, if found advisable, to reduce or eliminate some, so that those expenditures of most impor-

tance can be cared for by the present or even by a definitely reduced income.

Respectfully submitted,

T. Henshaw Kelly, *Chairman.*

* * *

The Speaker stated that the report of the Auditing Committee would be referred to the Reference Committee on Reports of Officers and Standing Committees.

* * *

VIII. Report of the Secretary-Treasurer.—The Speaker stated that since the report of the secretary-treasurer was printed in full in the *Pre-Convention Bulletin*, Doctor Pope had asked that the report be read by title only. Doctor Pope stated there was a discrepancy in the printed report which should be corrected—that in the second to the last paragraph the amount of \$15,252.10 included the salaries of the editors, one-third of the clerical force, and an item of \$4,557.66 for general expense. The report as submitted read:

To the Speaker and the House of Delegates:

Growth, somewhat less than normal, and the usual financial saving marked the year 1931.

While 363 members joined the Association, the actual increase for the year was but 124, the deaths of 46 members, resignations of 29, and the failure of 164 to meet their financial obligations accounting for the other 239. The membership—active, associate, retired, and honorary—numbered on December 31, 5004.

That California's growth, while less than usual, has been equal to or greater than the growth in other states, the apportionment to the House of Delegates of the American Medical Association proved. California was one of two states to whom was apportioned one additional delegate to the national House of Delegates, six states having lost one delegate. California now is entitled to seven representatives at the national session.

During January, February, and March of 1932, 198 new members joined the California Medical Association, seventy-four more than the entire increase of the previous year. During March alone, 110 joined. This membership growth is general throughout the Association. Of the thirty-nine component county medical societies, twenty-two reported new members in that month. Four thousand one hundred and twenty-eight members had paid 1932 dues on April 1—one hundred more than on the corresponding date of the previous year. This is the more surprising in view of the adverse times.

Seemingly, interest in medical economic problems and the establishment of a Public Relations Department at the last House of Delegates have stimulated a renaissance in Association interests.

Criticism regarding the proportion of members in the California Medical Association to the number of licentiates is not infrequent. Comparison between the total number of licentiates given in the directory of the Board of Medical Examiners and the membership in the California Medical Association is not a just comparison. The directory of the Board of Medical Examiners lists 11,124 as licentiates, but this number includes all licenses issued by the Board of Medical Examiners. Excluding licenses issued to drugless practitioners, naturopaths, chiropractors, and midwives (615); to medical practitioners in other states (1847); only thirty of whom belong to the California Medical Association; and to 600 doctors of medicine engaged in a sectarian branch and hence ineligible to election as members of the California Medical Association, this formidable total dwindles to 8,062, of whom 5,004 are members of the medical association. Five thousand and four members to 3,058 nonmembers is the correct comparison. Even these figures show need for growth in the Association, but not the need so often stressed.

PLACEMENT BUREAU

The Placement Bureau has directly reflected changed conditions. Few calls have come for physicians, fewer for technicians, and practically none for stenographers and office help. All who have found locations have

appreciated the service given, perhaps more than in normal periods. Twelve physicians, one technician, and ten stenographers and nurses secured placement. From June to December 1931, no call was received for a medical stenographer. Applicants far exceed openings. Positions were filled long before the physician in need of an assistant had to use the society Placement Bureau.

The time spent in registering all types of office help seemed better applied to other service for our members until such time as more numerous calls are received. Registrations have been limited to capable medical stenographers only and technicians.

OFFICE PERSONNEL

The work of the office increases in direct proportion to increase in membership, and in society activities. Response to increased demands has been made by the office personnel cheerfully and efficiently. The will to serve is an outstanding characteristic of the assistants in the state office. Your state office should be viewed as a general information desk to which you may turn for assistance at any time, and know that all calls will receive careful and prompt attention.

COUNTY SOCIETY COOPERATION

Without recognition of the work of the component county secretaries, the state secretary's report would be most incomplete. That 4,128 payments were recorded by April 1 simply means that thirty-nine county secretaries sent out statements, received and recorded checks, forwarded triplicate reports to your state office—in the majority of cases twice a month, beginning with January 1, 1932. Placer County was even more active; Doctor Peers's first statement for the new year was received on December 15, 1931.

Fifty-six reports of county society meetings have been sent to the JOURNAL by twenty-two component secretaries, all recording active, healthy interest in both the scientific and economic phases of medicine.

At the luncheon of state officers with officers of county societies and standing committees, every component county society will be represented. A state association has strength in direct ratio to the strength of its county units; the interest, service, and ability of its president and secretary, are greatly responsible for the activity of each unit.

TREASURER'S REPORT

The auditor's report for 1931 shows the customary \$10,000 increase in reserve.

Association Income and Expense.—Annual dues, receipts from exhibitors' space at the annual meeting, and interest on the State Association reserve form the bulk of the Association assets. Dues amounted to \$49,015. One-fifth of the dues of each member is allocated to CALIFORNIA AND WESTERN MEDICINE. The remaining four-fifths credited to the Association account amounted in 1931 to \$39,212; the interest on reserve, \$3,500; receipts from exhibitors, \$2,900; and other small returns from sale of directories, etc., made the total Association assets, apart from those of its JOURNAL, \$45,774.

The general expense, including the full salary of the secretary, \$3,600; two-thirds the salary of clerical assistants, \$5,000; two-thirds office rent, council expense, annual meeting, etc., \$8,200, totaled \$16,870.

To the general expense must be added \$5,024 for the legal department; \$2,895 for the directory; \$2,200 contribution to Lane and Barlow Medical Libraries; \$2,421 for Cancer Commission and Public Relations and Public Policy and Legislation work; \$300 for clinical and research prizes; \$1,372 for transportation expenses of delegates to the American Medical Association; \$239 for subscriptions to *Better Health*; \$400 for other outlays; making a total expenditure of \$31,712—a gain for 1931 of \$14,061.56 for the California Medical Association exclusive of the JOURNAL.

Journal Income and Expense.—The income of CALIFORNIA AND WESTERN MEDICINE from advertising was \$33,561.19; \$3,500 less than in 1930 due to cancellation of advertising contracts; from subscriptions (including allocated county society dues of \$9,803), \$12,440.50;

and from miscellaneous income, \$180, making total income \$46,181.64.

The expense of JOURNAL production and distribution totaled \$28,653.81; selling expense, \$5,802.39; salaries of the editors and one-third of the clerical force, and miscellaneous general expense amount to \$15,252.10; a total of \$49,708.30. JOURNAL loss of \$3,526.61, a loss somewhat less than the direct loss in advertising for that year. Deducted from the total gain of \$14,061.56, the net gain for the Association for 1931 was \$10,534.95.

The books of the Association are open to the members at the state office. The auditor's report is on the desk, and can be seen during the annual session in the Council room by interested members.

Respectfully submitted,

Emma W. Pope, *Secretary-Treasurer.*

✓ ✓ ✓

The Speaker stated that the report of the secretary-treasurer would be referred to the Reference Committee on Reports of Officers and Standing Committees.

* * *

IX. Report of the Editor.—At the request of the Speaker, George H. Kress of Los Angeles presented the report of the editor, as follows:

To the Speaker and the House of Delegates:

Herewith find report covering the last fiscal year for CALIFORNIA AND WESTERN MEDICINE, official journal of the California Medical Association:

I. REPORT ON MANUSCRIPT AND OTHER COPY SUBMITTED, PRINTED, OR AWAITING PUBLICATION

(a) *Report of Annual Session Papers of 1931—San Francisco Session.*—At the 1931 San Francisco annual session a total of 138 papers were read before the different sections. These were printed in CALIFORNIA AND WESTERN MEDICINE as follows:

San Francisco annual session papers published in 1931	26
San Francisco annual session papers published in 1932	20
San Francisco annual session papers read (but published elsewhere, declined, or not sent in).....	61
San Francisco annual session papers in California and Western Medicine files, still awaiting publication	31

Total San Francisco annual session papers were.....138

(b) *Report on All Special Articles Printed in California and Western Medicine During Period, April 1931 to April 1932 Issues, Inclusive.*—Special and original articles which were published in CALIFORNIA AND WESTERN MEDICINE during the past year (April 1931 to April 1932 issues, inclusive) are as follows:

Section papers from 1930 annual session (Del Monte session).....	45
Section papers from 1931 annual session (San Francisco session).....	38
California Medical Association prize papers (San Francisco session).....	3
Papers read before General Session (San Francisco session).....	5
Lure of Medical History articles.....	12
Papers from Utah and Nevada State Medical Association meetings.....	11
Papers read before county and other medical societies	9
Papers accepted from miscellaneous sources (original articles, abstracts of speeches, reprints from other publications, etc.).....	31
Clinical and Case Report articles.....	34
Medicine Today articles.....	36
Bedside Medicine symposia.....	12

Total papers published during past year.....236

(c) *Report on Manuscripts Awaiting Publication.*—CALIFORNIA AND WESTERN MEDICINE has on hand manuscripts which have been accepted and which are awaiting publication in issues of May 1932 and later:

Unpublished papers from 1931 annual session (San Francisco)	31
Unpublished papers read before county and other societies	4
Unpublished papers not read before other societies..	9
Unpublished papers read before Utah and Nevada Associations	1
Lure of Medical History articles.....	3
Clinical and Case Report articles.....	31
Medicine Today articles.....	9
Bedside Medicine symposia.....	4

Total manuscripts on hand awaiting publication.. 92

(d) *Report on Nonannual Session Papers Submitted.*—A total of sixty-three papers from county societies and other sources which were submitted for publication in CALIFORNIA AND WESTERN MEDICINE this past year (April 1931 to April 1932, inclusive) could not be accepted for various and special reasons.

Nonannual session papers submitted but declined.... 63

COMMENT

In last year's *Pre-Convention Bulletin* the special problem which still confronts the official journal, namely, the publication by CALIFORNIA AND WESTERN MEDICINE of all papers read at an annual session, was commented upon at some length. Last fall the Council ordered an extra sixteen-page folio in three of the issues in order to help pick up some of the long-delayed unpublished material which was lying in the files of CALIFORNIA AND WESTERN MEDICINE.

Owing to the number of manuscripts on hand, it was necessary during this last fiscal year to print some forty-eight papers which were read at the Del Monte annual session two years ago; and in addition to these were printed a total of forty-six section, prize, and guest speakers' papers which were read at the San Francisco annual session one year ago, leaving thirty-one annual session papers read at San Francisco still unpublished at the time this report is submitted.

Of course, if no other than annual session manuscripts had been accepted the annual session papers which were read at the San Francisco annual session would have been printed before now. But such a plan would not make for an official journal of broad scope and wide interests, and in practice would not work out to good advantage. To follow such a plan, it would not be possible for CALIFORNIA AND WESTERN MEDICINE to do much more than bring forth an annual proceedings volume such as was in vogue half a century ago, except that the annual proceedings volume would be printed in twelve monthly instead of one annual installment.

As the official publication of one of the largest state medical societies of the United States (California is exceeded in state society membership only by New York, Pennsylvania, Illinois, and Ohio) CALIFORNIA AND WESTERN MEDICINE has very special responsibilities in presenting to the more than five thousand members of the California Medical Association, reading matter that will emphasize present-day problems in scientific and organized medicine in such manner as to enlist the support and active coöperation of the members of that organization. That is one of the reasons why a certain number of papers read before component county medical societies of the California Medical Association must of necessity find a place in CALIFORNIA AND WESTERN MEDICINE. For similar reasons live topics of scientific or medical economic or other importance must also be presented, while the subjects discussed are of general or special interest.

In the April number of CALIFORNIA AND WESTERN MEDICINE, page 251, was presented the resolution of the Committee on Scientific Program and of the section officers, which resolution in effect stated that while all annual session papers automatically became the property of the California Medical Association, that publication of all papers in the official journal could not be guaranteed, and that such papers as were not accepted by CALIFORNIA AND WESTERN MEDICINE, because of its somewhat special field, would be returned to the authors in order that the same could be presented to other journals for consideration and publication.

Unless the House of Delegates takes other action in the above premises, this will be the standing rule for the official journal during the coming year, for no other course seems possible.

II. FINANCIAL REPORT OF CALIFORNIA AND WESTERN MEDICINE

At the time this report is written it is not possible to give final exact figures concerning the financial report of CALIFORNIA AND WESTERN MEDICINE because the Council is still to determine what portion of certain general expenses of the entire Association is to be

charged against the official journal. The editor, through resolution to the Council, has made request that such reallocation be made so that the actual JOURNAL income and expenses would stand separate and apart from certain general expenses which have been charged against it during the last several years, and concerning which explanatory comment was made in last year's annual report to the House of Delegates.

The advertising income of the JOURNAL reflects somewhat the general condition of the lay business world. Thus, during recent years, in round figures the advertising income was as follows: In 1928 the advertising income was \$34,830; in 1929 (when the JOURNAL advertising rates were raised 20 per cent) the advertising income reached \$40,098 (a gain of \$5,268); in 1930, was \$37,070 (a loss of \$3,028); in 1931 (our present fiscal year), was \$33,561 (a loss of \$3,509). We have been informed by those who should know that the loss of advertising in CALIFORNIA AND WESTERN MEDICINE has been considerably less than the percentage loss in advertising as noted, by and large, in trade and other publications. This statement would seem to be warranted when we consider that in our present somewhat desolate financial year CALIFORNIA AND WESTERN MEDICINE has only \$1,269 less advertising income than it had in a prosperity year such as 1928.

Plans have been under consideration for some time whereby a more aggressive advertising campaign may be instituted. At the Pasadena annual session the Los Angeles councilors will submit plans which they believe would aid in not only securing more advertising from Southern California firms, but which, in the long run, should also place the entire advertising program of the official journal on a sound basis. Using this year the same system of expense charges against CALIFORNIA AND WESTERN MEDICINE (namely, that one-third of the general expenses of the central offices of the Association be allocated to the official journal), the loss on production, printing and distribution of CALIFORNIA AND WESTERN MEDICINE for the prosperity year 1928 was \$3,334.84, and the loss for the fiscal year just closed was \$3,526.61, or a total of \$191.77 more loss this year than in 1928.

If prior to the Pasadena annual session the Council authorizes an allocation of the general expenses different from the system in vogue during the last several years, the editor will then submit the totals on such revised basis when this report is orally made to the House of Delegates.

In conclusion, it may again be stated that CALIFORNIA AND WESTERN MEDICINE is the official journal of the fifth largest state medical association in the United States. Of necessity, it is to a certain extent the mouthpiece of organized medicine in California and as such attempts to present not only the scientific achievements of the members of the California Medical Association (especially as expressed in the scientific meetings of each annual session), but also makes a constant effort to give to its readers informative papers having a relation to medical-economic and medical-legal problems.

The official journal is deeply appreciative of the coöperation of the many members who have submitted papers read at annual sessions or at component county society meetings and elsewhere, and of those who have sent in contributions to special columns such as the Lure of Medical History, Bedside Medicine, and Medicine Today departments.

During this last year (for example, in the September and April numbers) special efforts were made to present considerable material having a bearing on medical economics; this being desirable not only because of the importance which such topics nowadays have in the minds of physicians, but also because the institution by the House of Delegates of the new California Medical Association Department of Public Relations made it desirable that all members through their official journal should come into possession of as much factual information concerning such problems as possible.

Last, but not least, it is gratifying to know that in appearance, quantity, and quality CALIFORNIA AND

WESTERN MEDICINE measures up in excellent fashion with the foremost state medical journals of our country, that fact being a real compliment to its contributors.

Respectfully submitted,
George H. Kress, *Editor*.

The Speaker stated that the report of the editor would be referred to the Reference Committee on Reports of Officers and Standing Committees.

* * *

X. Report of the General Counsel.—At the request of the Speaker, the General Counsel, Hartley F. Peart, reported on the activities of the legal department during the past year. Mr. Peart reported on the status of the Indemnity Defense Fund. The General Counsel then discussed other problems of the Association on which the legal department had given advice or opinions to the Council, Executive Committee and other committees of the Association during the last year, including the use of county hospitals, the ownership of x-rays, hospital associations, medical service plans, the rights of physicians to fees when called as expert witness, pleading of assault instead of negligence in malpractice cases, services rendered "Trustees Of The California Medical Association," and other services involved in the activities of the Association.

The Speaker stated that the report of the General Counsel would be referred to the Reference Committee on Reports of Officers and Standing Committees.

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XI. Report of the Department of Public Relations. At the request of the Speaker, Walter M. Dickie, Director of the Department of Public Relations presented the following report:

To the Speaker and the House of Delegates:

Before outlining a program for the Department of Public Relations of the California Medical Association, I would like to enumerate in chronological order the various steps that have been taken by your Association in the formation of this department:

Resolution adopted by the House of Delegates on April 27, 1931:

Whereas, We believe it to be the consensus of opinion of the majority of the members of this Association that there seems to be an increasing demand upon the part of the public for more information on the subject of medical care; and

Whereas, There is an increasing demand upon the part of the members of this Association for more and detailed information upon medical economics and the modern art of the practice of medicine; and

Whereas, For want of medical leadership there seems to be an increasing tendency on the part of the laity to usurp the guidance which rightfully belongs to the profession; and

Whereas, Nonprofessional guidance is having not only a detrimental effect upon the practice of medicine, but is also jeopardizing the public health of the future; and

Whereas, Unless organized medicine takes immediate steps to regain the leadership it formerly held, it will be forced to follow under lay guidance and political domination; therefore, be it

Resolved, That the Council take immediate steps to create a Department of Public Relations, apart from the present Scientific Department, under the leadership of a well qualified, aggressive doctor of medicine as business manager, who would understand the psychology of the art of the practice of medicine, whose business it should be to train assistants and develop departments to actively promote and protect the interests of this Association and its members.

Resolution adopted by the Council on May 23, 1931:

Resolved, That the chairman of the Council appoint a committee of not less than three nor more than five to study the matter and report to the Council at the fall meeting.

Report of Special Committee.—Your special committee on Public Relations, appointed on August 31, 1931,

submits the following report on the proposed Department of Public Relations, including the structure of the department and the functions of the director.

On April 30, 1931, the House of Delegates of the California Medical Association adopted Resolution No. 1, which reads as follows.

"Resolved, That the Council take immediate steps to create a Department of Public Relations, apart from the present Scientific Department, under the leadership of a well qualified aggressive doctor of medicine as a business manager. . . ."

In establishing such a department it should be remembered that the Constitution of the California Medical Association provides existing machinery for carrying out all of the functions of public relations. The present standing committees on Public Policy and Legislation, on Health and Public Instruction, on Hospitals, Dispensaries and Clinics, and on Medical Economics are charged by the by-laws with the important relations between the Association and the public. The Constitution also provides for an executive secretary or field secretary to be employed by the Council. These committees and an executive secretary may well be grouped to form the Department of Public Relations required by the resolution of the House of Delegates. In this way the Department of Public Relations will be a logical development of the existing activities of the California Medical Association and not a duplication of the present effort.

The preamble of the resolution indicates as the function of this department the promotion of medical leadership in matters of public health, instruction of the public on the subject of medical care, supplying the members of the Association with detailed information on Medical Economics and the art of medical practice, and leadership in the proper distribution of adequate medical care. Our standing committees have made remarkable progress in laying the groundwork for these functions, but the detail work of these activities is beyond what can reasonably be expected of the members engaged in active practice or of the secretarial force of a private office. Each of the committees dealing with relations of the profession to the public requires a large amount of secretarial work in their investigation and business methods in the development of their policies. Also the findings of these committees should be permanently filed and correlated for future use. Furthermore, the extension of the work of these committees to the county societies and efficient contact with related state organizations and the legislature, requires the services of a full-time executive secretary.

The special committee on Public Relations, appointed by the chairman of the Council, makes the following recommendations:

First: That the Department of Public Relations be composed of those standing committees whose present functions deal with the relations of the profession to the public and of those commissions dealing with public health.

Second: That a Committee on Public Relations be established, composed of the chairmen of the component committees or commissions, with the president, secretary, and General Counsel of the California Medical Association ex officio.

Third: That after a comprehensive survey of available men in the United States the Council employ an executive secretary to be director of the Department of Public Relations as provided by the resolution of the House of Delegates.

Fourth: That all policies, activities, and bulletins of the department be subject to the approval of the Council or the Executive Committee. In order to facilitate freedom of action and avoid delay, a full report shall be submitted monthly to the Executive Committee.

Fifth: That the work and responsibilities of the present standing committees or commissions shall be in no way curtailed, but that their grouping into the department shall be considered to be for the purpose of increasing their activity and efficiency.

Sixth: That the Committee on Public Relations be charged with correlating the work of the component

committees or commissions and coöperating with the executive secretary in developing the policies of the department.

Your special committee on Public Relations has also considered the duties of the director of the department and recommends that the Council define these duties-as follows:

First: To assist the component committees in obtaining, filing, and correlating the information that they require.

Second: To extend to the county societies and members of the California Medical Association information on Medical Economics and Public Relations through bulletins and personal contact.

Third: To encourage the county societies to establish Committees on Public Relations or Medical Economics and to assist the county societies and their committees in the study of local problems.

Fourth: To interest the county societies in leadership of all public health activities.

Fifth: To develop plans with the component committees for the distribution of health information to the public by means of the press, radio, health exhibits, and a speakers' bureau.

Sixth: To contact the state organizations dealing with health and medical activities to the end that their work may be correlated with that of the California Medical Association.

Seventh: To assist the Committee on Public Policy and Legislation as may be directed by the Council.

A preliminary survey is being made of the available men in the United States to fill the position of director, but the committee has not had sufficient time to justify a final report in this regard.

Resolution adopted by the Council on September 26, 1931:

Pursuant with the direction of the House of Delegates, as embodied in Resolution No. 1, adopted April 30, 1931, at San Francisco, it is hereby

Resolved, That a Department of Public Relations of the California Medical Association be and hereby is established, to consist of a director, an advisory committee, and those standing committees or commissions of the California Medical Association whose present functions deal with public relations, public health, or public education. It is further

Resolved, That the structure and function of the Department of Public Relations be as follows:

1. The function of the department shall be to promote the leadership of the medical profession in public health activities, public health education, legislation dealing with public health and medicine and in the distribution of adequate medical care.

2. The actions, policy, and budget of the department shall be authorized by and subject to the approval of the Council of the California Medical Association or the Executive Committee, under authorization of the Council.

3. The director of the department shall also have the title of executive secretary as provided by the Constitution of the California Medical Association. He shall be appointed annually by the Council at its reorganization meeting, and his salary and duties shall be fixed by the Council. He shall be a graduate doctor of medicine, but need not necessarily be a member of the California Medical Association.

4. The director shall, with the coöperation of the Advisory Committee, assist the component committees of the department in carrying out their respective duties as designated in the Constitution of the California Medical Association or as defined by the Council or House of Delegates.

5. The Advisory Committee shall consist of the chairmen of the component committees or commissions together with the president, the secretary, and the general counsel of the California Medical Association. The Advisory Committee shall be known as the Committee on Public Relations and shall assist the director in coördinating the work of the component committees. This committee shall select its own chairman and secretary (who shall also be the chairman and secretary of the department at meetings

thereof) and be governed by the provisions of Chapter V of the By-Laws of the California Medical Association regarding standing committees.

6. The component committees of the Department of Public Relations at present shall be the Committee on Public Policy and Legislation, the Committee on Medical Economics, the Committee on Hospitals, Dispensaries and clinics, and the Cancer Commission. The Council, at its discretion, may add other committees to the department.

Resolution adopted by the Executive Committee of the Council on February 27, 1932:

Whereas, In conformity with the resolution passed by the House of Delegates of the California Medical Association at the 1931 annual session which directed the Council to form a Department of Public Relations headed by a director who must hold the degree of doctor of medicine; and

Whereas, The Council, upon the recommendation of a special committee appointed by it to study possible forms of organization, created a Department of Public Relations to consist of a director holding the degree of doctor of medicine, and the following committees of the California Medical Association: Cancer Commission, Committee on Public Policy and Legislation, Committee on Medical Education, Committee on Hospitals, Dispensaries and Clinics, and Committee on Health and Public Instruction; and

Whereas, The chairmen of these component committees, the president, the president-elect, and the secretary of the California Medical Association were constituted by the Council an advisory committee to be known as the Committee of Public Relations, with the duties of formulating plans and suggestions for the guidance of the Council and the House of Delegates in the furtherance of the work of the department, and of assisting the director in the correlation of the work of the various component committees of the department; and

Whereas, A special committee appointed by the Council at its meeting in San Francisco on January 16, 1932, and consisting of the president, the president-elect, the chairman of the Council, and the chairman of the Executive Committee, succeeded, at the direction of the Council, in obtaining the consent of Dr. Walter M. Dickie of Berkeley to serve as director of the department in accordance with the following letter received from Doctor Dickie:

Dr. O. D. Hamlin
Chairman of Council
California Medical Association
Federal Realty Building
Oakland, California

Dear Doctor Hamlin:

In answer to the offer of the California Medical Association through the Council, I beg to state that I am willing to accept the position of director of the proposed Department of Public Relations of the California Medical Association with the understanding that between now and the meeting of the Association in Pasadena, I devote sufficient time to making a survey and that, prior to the meeting, I make a written report to your Council with suggestions as to what I believe can be accomplished.

Then, if we can agree on a general policy and program for the conduct of the department, I shall be pleased to accept the position permanently. As suggested at the meeting Tuesday evening, the salary will be five hundred dollars a month and expenses, commencing February 1, 1932.

Assuring you of my appreciation of the honor of being considered for the position, I remain

Sincerely yours,

(Signed) WALTER M. DICKIE.

Whereas, The Council does not meet until May, 1932; therefore, be it

Resolved, That the Executive Committee recommends to the Council that it adopt the following organization for the Department of Public Relations:

1. The department shall consist of a director and the following standing committees of the Association: Cancer Commission, Committee on Public Policy and Legislation, Committee on Medical Economics, Committee on Hospitals, Dispensaries and Clinics, and Committee on Health and Public Instruction.

2. The function of the department shall be to promote the leadership of the profession in public health activities, public health education, legislation dealing with public health and medicine and the betterment of medical care extended to all.

3. The director shall be a doctor of medicine and shall serve the Council of the California Medical Association as managing director of the Department of Public Relations and he shall be responsible to the Council; and with the aid of the Committee on Public Relations and the component committees of the department, he shall carry out such activities in the department as may be determined upon and assigned to it by the Council of the California Medical Association.

4. He shall submit each year to the Auditing Committee as provided in the Constitution and By-Laws, a budget setting forth the estimated expenditures of his department for the next succeeding fiscal year.

5. The Committee on Public Relations shall assist the director in the correlation of the work of the component committees of the department and shall submit plans and suggestions for the furtherance of the work of the department to the Council and the House of Delegates.

6. The component committees of the department shall pursue such activities as are provided for them by the Constitution and By-Laws of the California Medical Association, and the director of the department may extend the facilities of the office of the department in furtherance of the work of said committees as far as is feasible.

Such committees may bring to the attention of the Council of the California Medical Association, through the Committee on Public Relations, such matters and suggestions as they may deem advisable; and be it further

Resolved, That the director, the Committee on Public Relations, and the component committees of the department be governed in accordance herewith, pending final action by the Council of the California Medical Association.

The foregoing constitute the important resolutions dealing with the department.

OUTLINE OF PROGRAM

In order to acquaint myself with the subject, I have gone over the records of the Association, dating back to the time at which this subject was first introduced, and have interviewed various officers and members of the Association who have been interested and given some thought to the subject of medical economics.

In outlining a program for the Department of Public Relations it should be divided into at least four separate activities to start with, and from time to time other activities may be added. This tends to a better administration and gives an opportunity for expansion along these particular lines.

We might designate these divisions under the headings of: Administration; Statistics; Education and Publicity; Legislation.

ADMINISTRATION

The division of administration would deal with the business activities and policies of the department as designated by the Council. If an efficient organization is to be established and is to be productive of results, the first function would be to educate the individual members of the Association as to the desirability of a unified spirit in dealing with the general subject of medical economics.

The department should establish a closer relationship between the California Medical Association and the various lay organizations of the state that have to do directly or indirectly with medicine, welfare or public health.

In order to establish a closer relationship between the State Association and the local societies, it would be advisable to organize component committees on Public Relations in the various county medical societies.

These committees, in conjunction with the Committee on Public Relations of the Association, would form a group which could meet periodically and study and discuss general economic problems. It would be advisable that the annual meeting of this committee be held at the same time and place as the annual meeting of the Association.

The department would assist medical societies or groups of members in the establishment of hospital associations, clinics, etc., where lay control and management does not exist and the proceeds go directly to members of the medical profession. (Any plan for the development of coöperative medical service should preferably be carried out in local units in order that we may obtain experience in organization and management.)

In order to work out such a program the State Association should lend its support, in order to make a practical demonstration with a given group of citizens whose income is assured and does not exceed a given amount.

One or more such demonstrations would give to the members of the Association more information and practical experience than can be obtained in years of discussion and research.

We should promote a closer relationship between local medical associations and boards of supervisors, so that the local societies may have a voice in the administration of the institutions and the treatment of patients. This may be brought about by the establishment by the board of supervisors of an advisory committee, on which the local society shall have representation, and the appointment of the county hospital staff by the advisory board.

The superintendents of county hospitals should be medical executives, devoting their full time to this work. All patients should be admitted to public hospitals and clinics through the social service department, which department should be responsible solely to the superintendent and the advisory board.

If hospital associations and clinics continue to expand and are the proper solution for the care and treatment of the middle classes, it would appear from past experience that in order to safeguard the public and maintain the present medical standards, it will be necessary to eliminate the layman in the management of such organizations and establish medical executives who shall work on a salary and be responsible to the medical profession, rather than a lay promoter, and to eliminate all profit from the operation of such organizations.

Regardless of what changes may take place in the future in the practice of medicine, it is apparent that our medical colleges should realize the necessity of establishing courses in medical economics and that some plan be worked out for the training of medical executives. It would seem that there is sufficient demand for medical executives to interest some of our national foundations in supplying this need, the same as they have done in the public health field.

STATISTICS

Medical economics is such a complex subject and has so many ramifications that, in order to carry out any constructive work, it will be necessary to establish a very complete statistical division. Various committees comprising the Department of Public Relations have gathered together much valuable information and have laid the foundation for this division. This information should be placed on file in the Department of Public Relations so that it may be available, not only to the department, but to the various local societies and members thereof.

Files should be established on county hospitals, public and private clinics, hospital associations, health insurance organizations, and any other agencies doing business in the State of California containing such data as may be pertinent to medical economics.

All special articles and literature on the subject of medical economics should be gathered together, assembled and filed. And the same should be done with

the reports of the Committees on Public Policy and Legislation, Hospitals and Clinics, Health and Instruction, and the Cancer Commission.

EDUCATION AND PUBLICITY

This division should edit and furnish suitable material on medical economics for the space allotted to the Department of Public Relations in the JOURNAL of the California Medical Association and in such other periodicals as may be designated by the Council.

It shall establish at state and county fairs educational exhibits on what medical science has done and has to offer for the treatment and prevention of disease.

It shall assist county societies, where necessary, in the organization of radio campaigns.

A speakers' bureau should be conducted in order that medical subjects may be presented to lay and medical groups.

It should establish lecture courses, where possible, in teachers' colleges and other educational institutions.

Speakers on programs of public and private agencies which deal with medical care, directly or indirectly, should be supplied.

LEGISLATION

The duties of the division of legislation would be to study all proposed medical legislation and such other legislation as may, directly or indirectly, have a bearing on medical economics, and to keep the local societies informed in reference to all medical legislation that is proposed or introduced into the legislature.

This division would review local legislation in reference to the establishment of health departments and other agencies in which the medical profession is interested.

The division would ascertain as far as possible the qualifications and attitude toward medicine of prospective candidates and members of the legislature.

Respectfully submitted,

Walter M. Dickie, *Director*.

* * *

The Speaker stated that the report of the Department of Public Relations would be referred to the Reference Committee on Reports of Officers and Standing Committees.

* * *

XII. Report of "Trustees Of The California Medical Association."—At the request of the Speaker, O. D. Hamlin of Oakland submitted the report of "Trustees Of The California Medical Association," which read as follows:

To the Speaker and the House of Delegates:

Following the last annual session, the "Trustees Of The California Medical Association" held the regular annual organization meeting at San Francisco on May 23, 1931, and elected officers and directors for the ensuing year.

During the year 1931 the Council of the California Medical Association authorized the transfer of \$25,000 of the funds of the California Medical Association to the "Trustees Of The California Medical Association," and since that time an additional \$50,000 has been transferred. After due consideration by the directors of the "Trustees Of The California Medical Association" \$21,163.41 of these funds were invested in United States Bonds of the Fourth Liberty Loan. The balance of \$51,721.59 has been left undisturbed in savings accounts in various California banks.

Respectfully submitted,

O. D. Hamlin, *Chairman*.

* * *

The Speaker stated that the report of the "Trustees Of The California Medical Association" would be referred to the Reference Committee on Reports of Officers and Standing Committees.

XIII. Unfinished Business:

Annual Budget.—T. Henshaw Kelly, chairman of the Auditing Committee, stated that in accordance with constitutional provision, the budget of estimated income and expense should be submitted to the House of Delegates. Doctor Kelly then submitted the following budget:

CALIFORNIA MEDICAL ASSOCIATION

Estimated Budget for 1933-1934

INCOME

California Medical Association:			
County society dues.....	\$48,000		
Interest—commercial and savings	3,600		
Directory sales.....	15		
Herzstein bequest.....	1,600		
Estimated net return commercial exhibits.....	1,500		
Medical Society, pro-rata general expense.....	600	\$55,315	
Journal:			
Advertising	\$33,000		
Paid subscriptions.....	1,500		
Sale of books, etc., to S. F. Co.			
Medical Society.....	180	34,680	\$89,995

EXPENSES

California Medical Association:			
Rent	\$ 3,060		
Office expense.....	150		
Office supplies.....	600		
Telephone	300		
Transportation	2,400		
Prizes	300		
Binding Journals.....	255		
Membership directory.....	500		
Public Relations Committee (including Cancer Commission)	14,500		
Public Health Exhibits.....	3,000		
Unforeseen contingent expenses..	5,000	\$30,065	
Salaries, secretary.....	\$3,600		
Clerical 2/3.....	4,865		8,465
Journal:			
Salaries, editorial.....	\$7,400		
Clerical 1/3.....	2,435		9,835
Publication expense.....	\$30,000		
Commission, L. J. Flynn.....	3,500		
Commission, Coöperative Medical Advertising Bureau.....	2,500		
Discounts and collections.....	400	36,400	
Legal Department.....		6,000	90,765
Deficit.....			\$ 770

* * *

The Speaker stated that the budget for the year 1933 would be referred to the Reference Committee on Reports of Officers and Standing Committees.

* * *

XIV. New Business:

The Speaker announced that the next order of business would be the presentation of new business.

* * *

Resignation of Joseph M. King.—The secretary presented the following resignation of Joseph M. King as president-elect:

"Deeply appreciating the fact that you have conferred upon me the highest honor within your gift, but realizing that my physical condition is such as to prevent me from carrying out what I believe to be the duties of the president, I hereby present my resignation as president-elect."

Dr. William Duffield stated that he felt Doctor King's physical ability would meet the requirements of the Association. Doctor Duffield then moved that the House of Delegates do not accept Doctor King's resignation but that it request Doctor King to proceed with the work of president to the best of his ability; such motion was seconded by Doctors Henry J. Ullmann and William R. Molony. Percy T. Phillips of Santa Cruz asked that a rising vote of the House be taken. A rising vote was taken and the resolution was unanimously adopted.

Appreciation of Appointments by Governor to Medical Positions.—Alfred J. Scott of Los Angeles read the following resolution:

Whereas, From the date of his inauguration as Governor of the State of California, the Honorable James Rolph, Jr., has shown his deep interest in the public health of the state; and

Whereas, He has appointed Dr. J. M. Toner, a physician, a member of the California Medical Association, to the office of Director of Institutions; and Dr. John H. Gallwey, a member of this Association, a regent of the University of California; and

Whereas, He has appointed to the Department of Public Health John H. Graves, M. D., a past president of the California Medical Association, J. B. Harris, M. D., president of the California Medical Association, E. M. Pallette, M. D., speaker of the House of Delegates of the California Medical Association, Gifford L. Sobey, M. D., a member of the California Medical Association, William R. P. Clark, M. D., a member of the California Medical Association, Burt S. Stevens, M. D., a member of the California Medical Association, Percival Dolman, M. D., a member of the California Medical Association, and Giles S. Porter, M. D., a member of the California Medical Association; and

Whereas, He has appointed to the Board of Medical Examiners P. T. Phillips, M. D., a past president of the California Medical Association, Charles B. Pinkham, M. D., a member of the California Medical Association, William R. Molony, M. D., president of the Los Angeles County Medical Association, Charles Sturgeon, M. D., vice-president of the Los Angeles County Medical Association, and Fred R. DeLappe, M. D., councilor of the California Medical Association; and

Whereas, Governor James Rolph, Jr., has honored the State of California, himself personally, and the medical profession as a whole by these appointments; now, therefore, be it

Resolved, By the Council of the California Medical Association at its sixty-first annual session held at Pasadena, this second day of May, 1932, that a vote of heartiest appreciation be extended to his Excellency, Governor James Rolph, Jr., for his appointments to these offices, which are so important to the welfare of the citizens of California; and be it further

Resolved, That these resolutions be spread on the minutes of this Council, and a copy be transmitted to the Honorable James Rolph, Jr.

1 1 1

Alfred J. Scott of Los Angeles then stated that the foregoing resolution had been adopted by the Council. Doctor Scott then moved for the endorsement by the House of Delegates of the action of the Council; such motion was seconded by Harry V. Brown of Los Angeles, and unanimously carried.

RESOLUTIONS*†

(a) *Resolution No. 1, Department of Public Relations.*†*

Carl R. Howson of Los Angeles presented the following resolution:

Whereas, Pursuant to the direction of the House of Delegates, as embodied in Resolution No. 1, adopted April 30, 1931, at San Francisco, California, there has been established by the Council of the California Medical Association a Department of Public Relations; and

Whereas, This department was originated for the purpose of increasing the activity and efficiency of those component committees of the Association which

have to deal with medical economics, public health, public education, and matters affecting the economic and legal status of the private physician in his relation to the public; and

Whereas, In the organization of this department there has been set up a Committee on Public Relations to act in an advisory capacity to the Director of Public Relations; and

Whereas, The Council has delegated to the Committee on Public Relations the power to act only in an advisory capacity to the director, but with no fixed duties or responsibilities; now, therefore, be it

Resolved, That the House of Delegates instruct the Council to adopt forthwith the following organization for the Department of Public Relations:

1. The Department of Public Relations shall consist of the component standing and special committees of the Association now known as the Committee on Public Policy and Legislation, the Committee on Medical Economics, the Committee on Hospitals, Dispensaries and Clinics, the Committee on Health and Public Instruction, the Committee on Membership and Organization, the Committee on Industrial Practice, and the Cancer Commission.

2. The chairmen of these various committees composing the department shall, with the president, the president-elect, and the secretary of the California Medical Association, compose the Committee on Public Relations.

3. The director of the Department of Public Relations, who shall also be known as a field secretary, *shall be preferably* (may be) a doctor of medicine, appointed by the Council of the California Medical Association, after consultation with the Committee on Public Relations.

4. This committee shall be responsible to the Council and to the House of Delegates for all of its activities.

5. The director shall be responsible to this Committee on Public Relations (; and he shall carry out such activities in the department as may be determined upon and assigned to him by said committee). *The director shall act under the supervision and instruction of the chairman of this committee in such matters as shall be approved or sanctioned by the committee.*

The Council or the Executive Committee may instruct the Committee on Public Relations and outline to it certain policies and duties, which shall be executed through the director (.) *as above provided.*

In the event of any disagreement between this committee and the Council or the Executive Committee as to any activity of policy, the decision of the Council, after full discussion and hearing, shall be final.

6. The Committee on Public Relations shall make recommendations to the Council for approval as to the time, the place, the number of meetings, and the budget of the department, provided that the secretary shall call the first meeting within sixty days following the annual meeting of the Association.

7. The Council shall arrange with the General Counsel to give this committee all needed legal aid.

8. The committee shall, *annually* at its first meeting, elect its own chairman. The secretary of the Association shall be ex officio its secretary. *A majority of the Committee shall constitute a quorum.*

And, Be It Further Resolved, That the House of Delegates of the California Medical Association hereby instructs the Council, at its organization meeting, to so (organize) *establish* the Department of Public Relations (.) *and the Committee on Public Relations. The Council shall proceed to organize the department as rapidly as possible.*

All resolutions of the Council and of the Executive Committee in relation to the Department of Public Relations, the Committee on Public Relations, and the Director of the Department, heretofore adopted, are hereby repealed.

Resolution No. 1, Department of Public Relations, was referred to the Reference Committee on Resolutions and New and Miscellaneous Business.

1 1 1

Resolution No. 2, Amendment to the By-Laws.†*—John V. Barrow of Los Angeles presented the following

* For action on all resolutions introduced at first meeting of House of Delegates see item 7, second meeting of House of Delegates.

† Amendments to resolutions made by Reference Committee are inserted above,—deletions by committee are enclosed in parentheses; additions by committee are inserted in italics.

See second meeting of House of Delegates for resolutions introduced at second meeting to clarify amendments to Constitution and By-Laws.

resolution to amend Chapter V, Section 8, of the By-Laws:

Resolved, That the By-Laws, Chapter V, Section 8, paragraph 2 thereof be amended to read as follows:

Chapter V

Section 8. *Committee on Scientific Work.*—This committee shall determine the character and scope of the scientific proceedings of the Association for each session and shall invite the guest speakers, subject to the approval of the Council.

Resolution No. 2, Amendment to By-Laws, Chapter V, Section 8, was referred to the Reference Committee on Resolutions and New and Miscellaneous Business. The Speaker stated this would be acted upon Wednesday night.

Resolution No. 3, Survey of Association Expenditures.†* William C. Voorsanger of San Francisco presented the following resolution:

Whereas, The expenditure of every dollar is of especial importance to physicians today; and

Whereas, The California Medical Association has embarked upon a constructive program in the organization of a Department of Public Relations and a Cancer Commission, both of which will require the expenditure of money for the successful prosecution of their work and attainment of their objectives; and

Whereas, The House of Delegates believes that economies in the present operation of the affairs of the Association can be affected without materially decreasing the efficiency and value of its services to its membership; therefore, be it

Resolved, That a committee be created consisting of the chairman of the Auditing Committee, one member of the Council appointed by the chairman of the Council, and three members of the 1932 House of Delegates appointed by the Speaker. The duty of this committee shall be to make a detailed survey of the expenditures of the California Medical Association and of CALIFORNIA AND WESTERN MEDICINE, looking toward a reduction of such expenditures and report to the Council at the (its) first (fall) meeting, following the annual session in 1932, for action by the Council.

Resolution No. 3, Expenditures of Association, was referred to the Reference Committee on Resolutions and New and Miscellaneous Business.

Resolution No. 4, Amendment to the Constitution.†*—Philip H. Stephens of Los Angeles presented the following resolution to amend Article VII, Section 1, of the Constitution; and Article VII, Section 8, of the Constitution:

Resolved, That the first two paragraphs of Section 1, Article VII of the Constitution, and Section 8, Article VII of the Constitution be amended to read respectively as follows:

Article VII. Council and Executive Committee.

Section 1. *The Council.*—The Council shall consist of the Councilors, and ex officio the President, the President-elect, the Speaker of the House of Delegates, and the chairman of the Committee on Public Relations, each with all the rights of a councilor.

Subject to the provisions herein, the Secretary-Treasurer and the Editor shall also be ex-officio members of the Council, but without the right to vote.

Section 8. *Executive Committee.*—The Executive Committee shall consist of the President, the President-elect, the Speaker of the House of Delegates, the Chairman of the Council, the Chairman of the Auditing Committee, the Chairman of the Committee on Public Relations, the Secretary-Treasurer, and the Editor.

Resolution No. 4, Amendment to the Constitution, Article VII, and Section 1, and Article VII, Section 8, was referred to the Reference Committee on Resolutions and New and Miscellaneous Business. The Speaker stated that since this was an amendment to the Constitution final action would be taken at the next annual session.

Resolution No. 5, Amendment to the By-Laws, Chapter V, Section, 10.†*—Edward W. Hayes of Los Angeles presented the following resolution to amend Chapter V, Section 10 of the By-Laws:

Resolved, That the By-Laws, Chapter V, Section 10 thereof be amended to read as follows:

Chapter V

Section 10. *Committee on Publications.*—The Committee on Publications shall consist of three elected members, and ex officio the Editor, the Associate Editor or Editors, and the Secretary-Treasurer.

The Committee, subject to the instruction and approval of the Council, shall have authority to arrange for the publication and distribution of the official journal of the Association and such other publications as the Council or the House of Delegates may instruct, and shall consult with the Editors; (etc.) and with the Secretaries of the component county societies, to the end that the scientific and organization work of the Association may be presented to the members of the Association in the best possible manner.

Resolution No. 5, Amendment to the By-Laws, Chapter V, Section 10, was referred to the Reference Committee on Resolutions and New and Miscellaneous Business. The Speaker stated this would be acted upon Wednesday night.

Resolution No. 6, Amendment to the By-Laws, Chapter VI, Section 8.†*—Charles T. Sturgeon of Los Angeles presented the following resolution to amend Chapter VI, Section 8 of the By-Laws:

Resolved, That the By-Laws, Chapter VI, Section 8 thereof be amended to read as follows:

Chapter VI

Section 8. *Duties of the Editor.*—The Editor and Associate Editor or Editors shall compile, edit and have charge of the official journal of the Association and such other publications as the Council or the House of Delegates may instruct them to undertake.

Resolution No. 6, Amendment to the By-Laws, Chapter VI, Section 8, was referred to the Committee on Resolutions and New and Miscellaneous Business. The Speaker stated this would be acted upon Wednesday night.

Resolution No. 7, Amendment to the Constitution, Article XII, Section 2.†*—Walter L. Huggins of Los Angeles presented the following resolution to amend Article XII, Section 2 of the Constitution:

Resolved, That the Constitution Article XII, Section 2 thereof be amended to read as follows:

Article XII

Section 2. *Annual Directory.*—The Association may publish an annual directory of members, with such other information as the Council may direct.

Resolution No. 7, Amendment to the Constitution, Article XII, Section 2, was referred to the Committee on Resolutions and New and Miscellaneous Business. The Speaker stated this was an amendment to the Constitution and final action would be taken at the next annual session.

* * *

*Resolution No. 8, Salaries of Employees.**—T. C. Myers of Los Angeles presented the following resolution:

Whereas, The depression of values throughout the country has increased the purchasing power of the dollar by about 40 per cent, be it hereby

Resolved, That the Council of the California Medical Association is instructed to seriously consider as a measure of equity and economy the reduction of salaries for the coming year, excepting all employees receiving less than Twelve Hundred (\$1200) Dollars per annum.

Resolution No. 8, Salaries of Employees, was referred to the Committee on Resolutions and New and Miscellaneous Business.

Resolution No. 9, Amendment to the By-Laws, Chapter IV, Section 4.†*—W. S. Mortensen of Los Angeles presented the following resolution to amend Chapter IV, Section 4 of the By-Laws:

Resolved, That the By-Laws, Chapter IV, Section 4 thereof be amended to read as follows:

Chapter IV

Section 4. *Order of Business.*—At meetings of the Council, business shall be transacted as the Council may determine from time to time by resolution.

The Council shall provide and fix the order of business of the first two meetings of the House of Delegates at each regular annual session, provided that the House may change this order at any time by a majority vote.

Resolution No. 9, Amendment to the By-Laws, Chapter IV, Section 4, was referred to the Committee on Resolutions and New and Miscellaneous Business. The Speaker stated this amendment would be acted upon Wednesday night.

* * *

Carl R. Howson of Los Angeles moved that the amendments to the Constitution and By-Laws proposed at this meeting be referred to the General Counsel of the Association that they may be put in such form as may be in conformity with proper legal procedure without change in their intent; such motion was seconded by T. Henshaw Kelly of San Francisco and unanimously carried.

* * *

Resolution No. 10, Digests of Medico-Legal Decisions.†* George H. Kress of Los Angeles presented the following resolution:

Whereas, *The Journal of the American Medical Association* prints in each of its issues a digest of major medico-legal decisions; and

Whereas, such digests, if brought out in booklet form, year by year, with proper index and cross references, could be of very great value to members of the medical and legal professions; now, therefore, be it

Resolved, By the House of Delegates of the California Medical Association at its sixty-first annual session, that it requests the House of Delegates of the American Medical Association to consider the advisability of recommending to the Board of Trustees of the American Medical Association, the publication, in the form of annual volumes, of these medico-legal digests which are printed in *The Journal of the American Medical Association*; and be it further

Resolved, That a copy or copies of such volume, as approved by the House of Delegates and by the Board of Trustees of the American Medical Association be sent each year to each of the constituent state associations; (and that it be made possible for members of the medical and legal professions to purchase copies of such annual compilations under such conditions as the Board of Trustees of the American Medical Association may deem proper).

Resolution No. 10, Digests of Medico-Legal Decisions was referred to the Reference Committee on Resolutions and New and Miscellaneous Business.

* * *

XV. Reading and Adoption of Minutes.—Minutes of the meeting were then read and, there being no objection, were approved.

* * *

XVI. Adjournment.—There being no further business, the meeting adjourned to meet in the ballroom at 8 p. m., Wednesday, May 4, 1932.

EDWARD M. PALLETTE, *Speaker*.
EMMA W. POPE, *Secretary*.

Second Meeting of the House of Delegates at the Sixty-First Annual Session

Held in the ballroom, Hotel Huntington, Pasadena, Wednesday, May 4, 1932, at 8 p. m.

I. Call to Order.—The meeting was called to order by the Speaker of the House, Edward M. Pallette of Los Angeles.

* * *

II. Roll Call.—The secretary called the roll; 107 members of the House of Delegates, consisting of officers, delegates and alternates, were seated, and the Speaker declared a quorum present.

* * *

III. Announcement of Place of 1933 Annual Session. The Speaker stated that Del Monte Hotel, Del Monte, had been selected as headquarters for the next annual session and the date had been fixed as April 24 to 27, inclusive.

* * *

IV. Resignation of Councilor.—The Speaker stated that George G. Reinle of Oakland had submitted his resignation as councilor-at-large.

O. D. Hamlin of Oakland moved that the resignation of George G. Reinle as councilor-at-large be accepted; such motion was seconded by George G. Hunter of Los Angeles and unanimously carried.

* * *

V. Election of Officers:

1. President-Elect.—The Speaker stated that the next order of business would be the election of officers, and that nominations for president-elect were in order.

Robert Peers of Colfax nominated George G. Reinle of Oakland as president-elect; such nomination was seconded by Daniel Crosby of Oakland.

Irving S. Ingber of San Francisco moved that the nominations be closed and that the secretary be instructed to cast the ballot for George G. Reinle; such motion was seconded by George G. Hunter of Los Angeles, and carried.

The secretary cast the unanimous ballot of the House for George G. Reinle, and the Speaker announced the election of George G. Reinle as president-elect for the ensuing year.

2. Speaker of the House of Delegates.—John H. Graves of San Francisco, Vice-Speaker of the House, then took the chair and announced that the next order of business would be the election of the speaker of the House of Delegates for the ensuing year.

William R. Molony of Los Angeles nominated Edward M. Pallette of Los Angeles as speaker of the House; such nomination was seconded by O. D. Hamlin of Oakland. Henry J. Ullmann of Santa Barbara moved that the nominations be closed and the secretary be instructed to cast the ballot for Edward M. Pallette; such motion was seconded by T. Henshaw Kelly of San Francisco, and carried.

The secretary cast the unanimous ballot of the House for Doctor Pallette, and the Vice-Speaker, Doctor Graves, announced the election of Edward M. Pallette as Speaker of the House of Delegates for the ensuing year. Doctor Pallette then took the chair.

3. Vice-Speaker of the House of Delegates.—The Speaker stated that the next order of business would be the election of a vice-speaker of the House of Delegates.

William Duffield of Los Angeles nominated John H. Graves of San Francisco as vice-speaker of the House of Delegates; such nomination was seconded by Irving S. Ingber of San Francisco.

George G. Hunter of Los Angeles moved that the nomination be closed and the secretary be instructed to cast the ballot for John H. Graves; such motion was duly seconded, and carried.

The secretary cast the unanimous ballot of the House for Doctor Graves, and the Speaker announced the election of John H. Graves as vice-speaker of the House of Delegates for the ensuing year.

4. *Election of Councilors.*—The Speaker stated that the next order of business would be the election of district councilors for the first, fourth, and seventh districts.

(a) *First District.*—The Speaker announced that William W. Roblee of Riverside had been nominated as councilor for the first district on written nomination filed with the secretary, signed by Harry E. Zaiser of Orange and Thomas A. Card of Riverside; such nomination was seconded by Henry J. Ullmann of Santa Barbara. Daniel Crosby of Oakland moved that the nominations be closed and that the secretary be instructed to cast the ballot for William W. Roblee; such motion was duly seconded, and carried.

The secretary cast the unanimous ballot of the House for William W. Roblee, and the Speaker announced the election of William W. Roblee as councilor for the first district for a term of three years.

(b) *Fourth District.*—The Speaker announced that the next order of business would be the election of a councilor for the fourth district.

Dewey Powell of San Joaquin nominated Fred R. DeLappe of Modesto as councilor for the fourth district; such nomination was seconded by R. S. Hiatt of Stanislaus. Henry J. Ullmann moved that the nominations be closed and that the secretary be instructed to cast the ballot for Fred R. DeLappe; such motion was seconded by T. Henshaw Kelly, and carried.

The secretary cast the unanimous ballot of the House for Fred R. DeLappe, and the Speaker announced the election of Fred R. DeLappe as councilor for the fourth district for a term of three years.

(c) *Seventh District.*—Frank S. Baxter of Oakland nominated O. D. Hamlin of Oakland as councilor for the seventh district; such nomination was seconded by U. S. Abbott of Richmond. T. Henshaw Kelly moved that the nominations be closed and that the secretary be instructed to cast the ballot for O. D. Hamlin; such motion was seconded by Henry J. Ullmann of Santa Barbara, and carried.

The secretary cast the unanimous ballot of the House for O. D. Hamlin, and the Speaker announced the election of O. D. Hamlin as councilor for the seventh district for a term of three years.

5. *Councilors-at-Large.*—The Speaker stated that the next order of business was the election of councilors-at-large to fill the vacancies caused by the expiration of the terms of George G. Hunter and Joseph Catton; and the election of a councilor-at-large to fill the unexpired term of George G. Reinle, resigned.

Carl R. Howson of Los Angeles nominated George G. Hunter of Los Angeles as councilor-at-large to succeed himself; such nomination was seconded by Harry H. Wilson of Los Angeles. O. D. Hamlin of Oakland moved that the nominations be closed and that the secretary be instructed to cast the ballot for George G. Hunter; such motion was duly seconded, and carried.

The secretary cast the unanimous ballot of the House for George G. Hunter, and the Speaker announced the election of George G. Hunter as councilor-at-large for a term of three years.

Alson R. Kilgore of San Francisco nominated Morton R. Gibbons of San Francisco as councilor-at-large to succeed Joseph Catton; such nomination was seconded by Joseph M. King of Los Angeles. T. Henshaw Kelly moved that the nomination be closed and that the secretary be instructed to cast the ballot for Morton R. Gibbons; such motion was seconded by Henry J. Ullmann, and carried.

The secretary cast the unanimous ballot of the House, and the Speaker announced the election of Morton R. Gibbons as councilor-at-large for a term of three years.

The Speaker stated that nominations were in order to fill the unexpired term of Doctor Reinle.

A. M. Meads of Oakland nominated Junius B. Harris of Sacramento as councilor-at-large to fill the unexpired term of Doctor Reinle; such nomination was seconded by Clarence G. Toland of Los Angeles. Robert A. Peers of Colfax moved that the nomination

be closed and that the secretary be instructed to cast the ballot for Junius B. Harris; such motion was duly seconded, and carried.

The secretary cast the ballot and the Speaker announced the election of Junius B. Harris as councilor-at-large for the unexpired term of George G. Reinle, term expiring 1934.

* * *

VI. *Election of Delegates and Alternates to the American Medical Association.*—The Speaker stated that nominations for delegates and alternates to the American Medical Association for the sessions of 1933 and 1934 were in order.

(a) Alson R. Kilgore of San Francisco nominated Charles A. Dukes of Oakland as delegate to the American Medical Association for the sessions of 1933 and 1934; such nomination was seconded by T. Henshaw Kelly of San Francisco.

Henry J. Ullmann of Santa Barbara moved that the nominations be closed and the secretary cast the ballot for Doctor Dukes; such motion was seconded by T. Henshaw Kelly of San Francisco, and carried.

The secretary cast the ballot and the Speaker announced the election of Charles A. Dukes of Oakland as delegate to the American Medical Association for the sessions of 1933 and 1934.

(b) T. Henshaw Kelly nominated LeRoy Brooks of San Francisco as alternate to Charles A. Dukes of Oakland to the American Medical Association for the sessions of 1933 and 1934; such nomination was duly seconded. N. B. See, also, later action of House of Delegates.)

Henry J. Ullmann of Santa Barbara moved that the nominations be closed and that the secretary be instructed to cast the ballot for Doctor Brooks; such motion was duly seconded, and carried.

The secretary cast the ballot and the Speaker announced the election of LeRoy Brooks of San Francisco as alternate to Charles A. Dukes for the American Medical Association sessions of 1933 and 1934. (N. B. See, also, later action of House of Delegates.)

(c) William R. Molony of Los Angeles nominated Carl R. Howson of Los Angeles as delegate to the American Medical Association for the sessions of 1933 and 1934; such nomination was seconded by George G. Hunter of Los Angeles.

Henry J. Ullmann of Santa Barbara moved that the nominations be closed and that the secretary be instructed to cast the ballot for Doctor Howson; such motion was seconded by T. Henshaw Kelly of San Francisco, and carried.

The secretary cast the ballot and the Speaker announced the election of Carl R. Howson of Los Angeles as delegate to the American Medical Association for the sessions of 1933 and 1934.

(d) T. C. Myers of Los Angeles nominated Charles D. Lockwood of Pasadena as alternate to Carl R. Howson of Los Angeles to the American Medical Association for the sessions of 1933 and 1934; such nomination was duly seconded.

Henry J. Ullmann of Santa Barbara moved that the nominations be closed and the secretary cast the ballot; such motion was duly seconded, and carried.

The secretary cast the ballot and the Speaker announced the election of Charles D. Lockwood as alternate to Carl R. Howson for the American Medical Association for the sessions of 1933 and 1934.

(e) Karl Schaupp of San Francisco nominated Junius B. Harris of Sacramento as delegate to the American Medical Association for the sessions of 1933 and 1934; such nomination was seconded by William Duffield of Los Angeles.

O. D. Hamlin of Oakland moved that the nominations be closed and that the secretary be instructed to cast the ballot; such motion was seconded by Karl Schaupp of San Francisco, and carried.

The secretary cast the ballot and the Speaker announced the election of Junius B. Harris as delegate to the American Medical Association for the sessions of 1933 and 1934.

(f) Cecil M. Burchfiel of San Jose nominated John Hunt Shephard of San Jose as alternate to Junius B. Harris of Sacramento to the American Medical Association for the sessions of 1933 and 1934; such nomination was seconded by Alfred L. Phillips of Santa Cruz.

Joseph M. King of Los Angeles moved that the nominations be closed and that the secretary be instructed to cast the ballot for Doctor Shephard; such motion was seconded by C. G. Toland of Los Angeles and carried.

The secretary cast the ballot and the Speaker announced the election of John Hunt Shephard as alternate to Junius B. Harris for the American Medical Association sessions of 1933 and 1934.

(g) Carl R. Howson of Los Angeles nominated William R. Molony as delegate to the American Medical Association for the sessions of 1933 and 1934; such nomination was duly seconded.

F. C. E. Mattison moved that the nominations be closed and that the secretary be instructed to cast the ballot for Doctor Molony; such motion was duly seconded and carried.

The secretary cast the ballot and the Speaker announced the election of William R. Molony as delegate to the American Medical Association for the sessions of 1933 and 1934.

(h) Phillip Stephens of Los Angeles nominated John C. Ruddock of Los Angeles as alternate to William R. Molony of Los Angeles to the American Medical Association for the sessions of 1933 and 1934; such nomination was seconded by Charles T. Sturgeon.

Clarence G. Toland of Los Angeles moved that the nominations be closed and that the secretary be instructed to cast the ballot for Doctor Ruddock; such motion was duly seconded and carried.

The secretary cast the ballot and the Speaker announced the election of John C. Ruddock as alternate to William R. Molony for the American Medical Association sessions of 1933 and 1934.

(i) It was pointed out that LeRoy Brooks of San Francisco, who had been elected at this meeting of the House of Delegates as alternate to Charles A. Dukes, was serving as alternate to Dudley Smith of Oakland by virtue of election at the 1930 House of Delegates.

Alson R. Kilgore of San Francisco moved for reconsideration of the action on the election of LeRoy Brooks as alternate to Charles A. Dukes for the American Medical Association sessions of 1933 and 1934; such motion was duly seconded and unanimously carried.

George H. Kress of Los Angeles nominated Harry H. Wilson of Los Angeles as alternate to Charles A. Dukes of Oakland for the American Medical Association sessions of 1933 and 1934; such nomination was duly seconded.

T. Henshaw Kelly moved that the nominations be closed and the secretary be instructed to cast the ballot for Doctor Wilson; such motion was duly seconded and carried.

The secretary cast the ballot and the Speaker announced the election of Harry H. Wilson of Los Angeles as alternate to Charles A. Dukes of Oakland for the American Medical Association sessions of 1933 and 1934.

* * *

VII. Report of Reference Committee on Reports of Officers and Standing Committees.—The Speaker stated that in the absence of the chairman of Reference Committee No. 1, the report would be presented by Alson R. Kilgore of San Francisco, member of the committee. Doctor Kilgore then presented the following report:

To the Speaker and the House of Delegates:

Your Reference Committee has carefully considered the reports of officers and standing committees of the California Medical Association referred to it and is ready to present its report.

Report of the President.—The president's report to the House of Delegates should be supplemented by his address to the members at the first general session.

We are impressed by the scope of the excellent work that has been accomplished during the past year and the coöperation of all members with cheerful optimism. This condition can only prevail if the leader is willing to fill the rôle of leader with kindness, fairness and firmness. Doctor Harris has done this. The fact of his residence at the State Capital is of immense value to this Association. Besides the gilded dome protecting and shining down on us from the capitol building, we may well feel that we have another gilded dome surmounting all the fine qualities a gentleman and member of our profession should possess, who will continue in the future, as in the past, with unlimited energy to do all that can be accomplished for scientific medicine.

May the thatch on this golden dome never become thin or lose its priceless luster.

I herewith move the adoption of the president's report. Said motion was duly seconded and unanimously carried.

Report of the President-elect.—We are distressed to hear from Doctor King of indifferent health and we appreciate his broadness and fairness in offering to resign. The House of Delegates has again unanimously expressed its desire that Doctor King serve us as president. This carries with it on the part of all of the members of the Association an obligation to aid and assist Doctor King in all the functions of his office, thus not making his term a burden but a pleasure and satisfaction in all its relations,—that with his splendid ability he may serve us during another year of progress.

I move at this time the House of Delegates pledge to Doctor King their loyalty and assistance during his term of office. Said motion was duly seconded and unanimously carried.

Report of the Secretary-Treasurer.—The report of the secretary-treasurer is a complete and illuminating one. Your committee finds no other comment to make upon it.

I move its adoption. Said motion was duly seconded and unanimously carried.

Report of the Auditing Committee.—The auditor's report is comprehensive, complete, and its accuracy attested by certified public accountant. We heartily endorse that part of the Auditing Committee report which anticipates a survey of expenditures in all departments which contemplates the handling of affairs of the Association with the greatest economy.

I move the adoption of the report of the Auditing Committee. Said motion was duly seconded and unanimously carried.

Report of the Editor.—The editor's report needs very little comment in that it is so comprehensive to those who may read. The problems are best known by the editor himself and anything that we could add toward the solution of the problems he presents would be of little value. We feel that the solution of these questions may be left to the Council and the editor to be worked out.

Report of the Council.—The report is comprehensive and needs only slight discussion.

We agree that the annual dues for 1933 should be \$10 and so recommend.

We have considered this in connection with the auditor's report and the proposed budget.

We agree to and endorse the action of the Council at the present time in not recommending the establishment of a Physical-Therapy Section; however, as time goes on, realizing the diversity of its use and its importance, we hope with changed conditions, it may meet with favorable consideration.

I move for the adoption of the report of the Council. Said motion was duly seconded and unanimously carried.

Reports of Councilors.—The work of the district councilors and councilors-at-large appear in order and indicate that each of them is working to accomplishment of the functions of his office in a manner helpful and satisfactory to the membership.

I move the adoption of the reports of the councilors.

Legal Department.—As usual the report of this department is very satisfactory. We feel it again the pleasure and duty of this committee to commend our General Counsel Peart and Associate Counsel Morrow for their courtesy and the efficient work they are doing in their different positions of steering our craft through the troubled waters of legal problems.

Standing Committees.—In regard to the reports of the standing committees, each one is so self-explanatory that further comment on the part of this committee would offer little of additional value.

As to the suggestions made in these reports, we are heartily in accord.

I move the adoption of the reports of the Committees on Associated Societies and Technical Groups, on Extension Lectures, on Health and Public Instruction, on History and Obituaries; Hospitals, Dispensaries and Clinics; Industrial Practice, Medical Defense, Medical Economics, Medical Education and Medical Institutions, Membership and Organization, Publications, Public Policy and Legislation, and Scientific Work and the Cancer Commission. Said motion was seconded and unanimously carried.

In commenting on the report of the Department of Public Relations, this Department is only in its infancy, and we look forward to the development of its activities under the wise direction of the Council to increasingly important and useful service by this new department to this Association, its component county medical societies and its individual members.

I move for the adoption of the report. Said motion was duly seconded and unanimously carried.

Respectfully submitted,

Percy T. Phillips, *Chairman*,
Alson R. Kilgore,
Harry H. Wilson.

Alson R. Kilgore then moved for the adoption of the report of the Reference Committee on Reports of Officers and Standing Committees as a whole; such motion was seconded by William C. Voorsanger of San Francisco, and unanimously carried.

* * *

VIII. Report of the Reference Committee on Resolutions and New and Miscellaneous Business.—The Speaker stated that the report of the Reference Committee, No. 2, on Resolutions and New and Miscellaneous Business would be presented by William R. Molony of Los Angeles, chairman of the committee. Doctor Molony then presented the following *report: *To the Speaker and House of Delegates:*

(a) **Resolution No. 1,** Department of Public Relations.** William R. Molony moved that the resolution regarding the Department of Public Relations as amended by Reference Committee, No. 2, be adopted; such motion was seconded by Karl Schaupp of San Francisco. Doctors Robert R. Newell of San Francisco, William C. Voorsanger of San Francisco, T. Henshaw Kelly of San Francisco, Daniel Crosby of Oakland, Carl R. Howson of Los Angeles, and John H. Graves of San Francisco addressed the House on the merits of the resolution.

A vote was then taken on the motion. Carried.

(b) **Resolution No. 2,** Amendment to the By-Laws, Chapter V, Section 8.**—William R. Molony of Los Angeles moved that the amendment be adopted; such motion was seconded by Charles Lockwood of Pasadena, and unanimously carried. The Speaker thereupon declared the By-Laws amended accordingly.

(c) **Resolution No. 3,** Survey of Association Expenditures.**—William R. Molony of Los Angeles moved for the adoption of this resolution; such motion was duly seconded, and carried. Doctor Molony then stated that since the sense of Resolution No. 8, Salaries of Employees, was embodied in this resolution the two resolutions were incorporated in Resolution No. 3.

* Resolutions are here inserted in proper number sequence in relation to first House of Delegates meeting for clarity and to simplify future reference, although they were not so presented by the committee.

** See first meeting of House of Delegates for resolutions and amendments thereto, except resolutions introduced for first time at second meeting of House of Delegates.

(d) **Resolution No. 4,** Amendment to Constitution, Article VII, Sections 1 and 8.**—William R. Molony of Los Angeles moved that this resolution to amend and amendment to, the Constitution having been duly presented and filed with the secretary, be published twice in separate issues of CALIFORNIA AND WESTERN MEDICINE, the official journal of the Association, prior to the next regular annual session of the House of Delegates and be submitted to, and considered by, the House of Delegates at such next regular session.

(e) **Resolution No. 5,** Amendment to the By-Laws, Chapter V, Section 10.**—William R. Molony moved for the adoption of this amendment; such motion was duly seconded and unanimously carried. The Speaker thereupon declared the By-Laws amended accordingly.

(f) **Resolution No. 6,** Amendment to By-Laws, Chapter VI, Section 8.**—William R. Molony moved for the adoption of this amendment; such motion was duly seconded and unanimously carried. The Speaker thereupon declared the By-Laws amended accordingly.

(g) **Resolution No. 7,** Amendment to the Constitution, Article XII, Section 2.**—William R. Molony moved that this resolution to amend and amendment to, the Constitution having been duly presented and filed with the secretary, be published twice in separate issues of CALIFORNIA AND WESTERN MEDICINE, the official journal of the Association, prior to the next regular annual session of the House of Delegates and be submitted to, and considered by, the House of Delegates at such next regular session.

(h) **Resolution No. 8, Salaries of Employees.**—(Incorporated in Resolution No. 3.)

(i) **Resolution No. 9,** Amendment to the By-Laws, Chapter IV, Section 4.**—William R. Molony moved for the adoption of this amendment; such motion was duly seconded and unanimously carried. The Speaker thereupon declared the By-Laws amended accordingly.

(j) **Resolution No. 10, Digests of Medico-Legal Decisions.**—William R. Molony moved for the adoption of this resolution as amended by the committee; such motion was duly seconded and unanimously carried.

(k) **Resolution No. 11,† Chairman of Committee on Public Relations to Be Invited to Meetings of Council and Executive Committee.**—William R. Molony then read the following resolution offered by the Committee on Resolutions and New and Miscellaneous Business:

In view of the fact that the amendments to the Constitution introduced at the first session of the House of Delegates providing for the addition to the Council and the Executive Committee of the chairman of the Committee on Public Relations, cannot under the Constitution be acted upon or adopted until the next annual session of the House of Delegates, the committee recommends the adoption of the following resolution:

Resolved, That it is the sense of the House of Delegates and it so recommends to the Council and to the Executive Committee that the Council invite the chairman of the Committee on Public Relations, and that the Executive Committee invite said chairman, to attend all meetings of each of said bodies respectively throughout the intervening year with the right to address and bring to the attention of each thereof matters pertaining to the Department of Public Relations.

William R. Molony then moved for the adoption of this resolution; such motion was seconded by Carl Howson and carried.

(l) **Resolution No. 12,† Amendment to Article X, Section 1 of the Constitution.**—William R. Molony then presented the following resolution to amend and amendment to, the Constitution, Article X, Section 1:

Resolved, That the Constitution, Article X, Section 1, thereof, be amended to read as follows:

Article X

Section 1, Officers.—The officers of the Association shall be a President, a President-elect, a Secretary-Treasurer, a Speaker of the House of Delegates, a Vice-Speaker of the House of Delegates, an Editor, a Chairman of the Committee on Public Relations, and

† Offered by committee to clarify and coördinate amendments to Constitution and By-Laws.

fifteen Councilors (six of the fifteen Councilors being elected as at large and nine from Councilor Districts as herein provided.)

William R. Molony then filed said amendment with the secretary and moved that this amendment to the Constitution having been duly presented and filed with the secretary, be published twice in separate issues of CALIFORNIA AND WESTERN MEDICINE, the official journal of the Association, prior to the next regular annual session of the House of Delegates and be submitted to, and considered by, the House of Delegates at such next regular session. Said motion was duly seconded and unanimously carried.

(m) *Resolution No. 13,† Amendment to the Constitution, Article X, Section 4.*—William R. Molony then presented the following resolution to amend and amendment to, the Constitution, Article X, Section 4:

Resolved, That the Constitution, Article X, Section 4, thereof, be amended to read as follows:

Article X

Section 4. Officers as Ex Officio Members of the Council.—The President, President-elect, Speaker of the House of Delegates and Chairman of the Committee on Public Relations shall be ex officio members of the Council with all the rights of Councilors.

The Secretary-Treasurer and the Editor shall also be ex officio members of the Council, but shall not have the right to vote; provided, that a Secretary-Treasurer or an Editor who is not a member of the Association shall not be an ex officio officer of the Council.

William R. Molony then filed said amendment with the secretary and moved that this amendment to the Constitution having been duly presented and filed with the secretary, be published twice in separate issues of CALIFORNIA AND WESTERN MEDICINE, the official journal of the Association, prior to the next regular annual session of the House of Delegates and be submitted to, and considered by, the House of Delegates at such next regular session. Said motion was duly seconded and unanimously carried.

(n) *Resolution No. 14,† Amendment to the Constitution, Article X, Section 15.*—William R. Molony then presented the following resolution to amend and amendment to, the Constitution, Article X, Section 15:

Resolved, That the Constitution, Article X thereof, be amended by adding a new section thereto to be numbered Section 15, and reading as follows:

Section 15. Committee on Public Relations.—The House of Delegates shall create and establish a Committee on Public Relations. The powers, duties, and functions of the said committee shall be prescribed and fixed by the By-Laws. Said committee shall hold its annual organization meeting as soon as convenient after the adjournment of the regular annual sessions of the House of Delegates and shall at such meeting elect a chairman to serve for the term of one year and until his successor is elected and assumes office. The chairman of said committee shall be an officer of the Association and ex officio a member of the Council with all the rights of a councilor.

William R. Molony then filed said amendment with the secretary and moved that this amendment to the Constitution having been duly presented and filed with the secretary, be published twice in separate issues of CALIFORNIA AND WESTERN MEDICINE, the official journal of the Association, prior to the next regular annual session of the House of Delegates and be submitted to, and considered by, the House of Delegates at such next regular session. Said motion was duly seconded and unanimously carried.

Respectfully submitted,

William R. Molony, *Chairman*,
Irving S. Ingber,
Benjamin W. Black.

† Offered by committee to clarify and coördinate amendments to Constitution and By-Laws.

Henry J. Ullmann then moved for the adoption as a whole of the report of the Reference Committee No. 2, Resolutions and New and Miscellaneous Business. Such motion was seconded by John C. Ruddock of Los Angeles and unanimously carried.

* * *

IX. **Standing Committees.***—The Speaker stated that the next order of business would be the submission of names of new members appointed to the standing committees of the California Medical Association for approval by the House of Delegates. The Speaker then presented the names of all committeemen as follows:

Committee on Associated Societies and Technical Groups:
William H. Geistweit.....San Diego 1933
R. Manning Clarke.....Los Angeles 1934
Clifford Sweet.....Oakland 1935

Committee on Extension Lectures:

J. Homer Woolsey.....San Francisco 1933
Robert T. Legge.....Berkeley 1934
James F. Churchill.....San Diego 1935
Secretary, ex officio

Committee on Health and Public Instruction:

W. R. P. Clark.....San Francisco 1933
Langley Porter.....San Francisco 1934
Fred B. Clarke.....Long Beach 1935

Committee on History and Obituaries:

Emmet Rixford.....San Francisco 1933
George D. Lyman.....San Francisco 1934
Charles D. Ball.....Santa Ana 1935
Secretary, ex officio
Editor, ex officio

Committee on Hospitals, Dispensaries and Clinics:

Wallace Dodge.....Los Angeles 1933
Karl L. Schaupp.....San Francisco 1934
John C. Ruddock.....Los Angeles 1935

Committee on Industrial Practice:

Mott H. Arnold.....San Diego 1933
Daniel Crosby.....Oakland 1934
Morton R. Gibbons.....San Francisco 1935

Committee on Medical Defense:

Fred R. DeLappe.....Modesto 1933
Henry Snure, Sr.....Los Angeles 1934
George G. Reinle.....Oakland 1935

Committee on Medical Economics:

Daniel Crosby.....Oakland 1933
Lyell C. Kinney.....San Diego 1934
John H. Graves.....San Francisco 1935

Committee on Membership and Organization:

Jesse W. Barnes.....Stockton 1933
LeRoy Brooks.....San Francisco 1934
Harry Wilson.....Los Angeles 1935
Secretary, ex officio

Committee on Publications:

Frederick F. Gundrum.....Sacramento 1933
Percy T. Magan.....Los Angeles 1934
Ruggles A. Cushman.....Santa Ana 1935
Secretary, ex officio
Editor, ex officio

Committee on Public Policy and Legislation:

Joseph Catton.....San Francisco 1933
William Duffield.....Los Angeles 1934
Junius B. Harris.....Sacramento 1935
President, ex officio
President-elect, ex officio

Committee on Scientific work:

F. M. Pottenger.....Monrovia 1933
Lemuel P. Adams.....Oakland 1934
John Homer Woolsey.....San Francisco 1935

Secretary of Section on General Medicine, ex officio

Secretary of Section on General Surgery, ex officio

Secretary of California Medical Association, ex officio,
(chairman)

Committee on Medical Education and Medical Institutions:

George G. Hunter.....Los Angeles 1933
H. A. L. Ryfkgel.....San Francisco 1934
George Dock.....Pasadena 1935

Committee on Clinical and Research Prizes:

George Dock.....Pasadena 1933
Eugene Kilgore.....San Francisco 1934
Arthur L. Bloomfield.....San Francisco 1935

Cancer Commission:

Harold Brunn.....San Francisco 1933
Henry J. Ullmann.....Santa Barbara 1933
Clarence G. Toland.....Los Angeles 1933
Charles A. Dukes, chairman.....Oakland 1934
Lyell C. Kinney, vice-chairman.....San Diego 1934
Alson R. Kilgore, secretary.....San Francisco 1934
William Ophüls.....San Francisco 1935
Orville Meland.....Los Angeles 1935
A. Herman Zeiler.....Los Angeles 1935

* The Committee on Public Relations is not printed in this list because it has not yet organized for the coming year.

Robert V. Day of Los Angeles moved that the elections to standing committees as made by the Council be approved by the House of Delegates; such motion was seconded by Charles T. Sturgeon and unanimously carried.

* * *

X. Resolution of Appreciation.—T. Henshaw Kelly of San Francisco presented the following resolution:

Two years as chairman of the Arrangements Committee at Del Monte and San Francisco have just passed and two years of this entitles me to pass an expert opinion upon the success of an annual session of the California Medical Association and aside from the personal note introduced by the two preceding remarks, the members of the California Medical Association have enjoyed an unusual session, superlatively characterized by thoughtful arrangements and consideration of their interests, comfort and pastimes. Therefore, be it

Resolved, That the House of Delegates, speaking for the California Medical Association, extend to the Committee on Arrangements and to the Woman's Auxiliary of the California Medical Association, its thanks and deep appreciation for the work and accomplishments which have resulted in an annual session not to be forgotten by any of those who attended and that future Committees on Arrangements be instructed to take this session as a pattern around which they shall cut, and that the management of the Hotel Huntington be thanked for its unfailing courtesy and assiduous attention to the welfare of the members of the California Medical Association, which have been such that there will be a persisting temptation to them to return.

T. Henshaw Kelly then moved for the adoption of the foregoing resolution; such motion was seconded by Robert R. Newell of San Francisco and unanimously carried.

The chairman of the Arrangements Committee then expressed the appreciation of the Association for the aid given by the Woman's Auxiliary in making the 1932 annual session a successful meeting.

* * *

XI. Presentation of the Incoming President.—Junius B. Harris and Clarence G. Toland were delegated to escort the incoming president, Joseph M. King of Los Angeles, to the platform. The Speaker introduced the incoming president to the members of the House of Delegates. Doctor King then addressed the House, expressing his appreciation of the honor bestowed upon him.

* * *

XII. Speech of Retiring President.—The Speaker then called upon the retiring president, Junius B. Harris. Doctor Harris expressed his appreciation of the coöperation of members of the Association during his term of office, and mentioned the pleasure he had derived from his duties.

* * *

XIII. Presentation of President-Elect.—George G. Reinle of Oakland, president-elect, was then introduced to the House by the Speaker. Doctor Reinle thanked the members for the honor conferred by the Association in his election as president-elect.

* * *

XIV. Approval of Minutes.—The Speaker stated that the minutes of this session could be read at this time or, if the House so ordered, a special committee could be appointed to review the same.

Karl L. Schaupp then moved that the approval of minutes be referred to a special committee consisting of the president of the Association, the Speaker of the House and the general counsel; such motion was seconded by George G. Hunter and unanimously carried.

* * *

XV. Adjournment.—There being no further business, the meeting adjourned.

EDWARD M. PALLETTE, *Speaker*.
EMMA W. POPE, *Secretary*.

REPORTS OF OFFICERS*

REPORT OF PRESIDENT-ELECT

To the President and House of Delegates:

The president-elect has attended nearly all the meetings during the year of the committees of which he is ex officio a member, and has made an earnest effort to acquaint himself with the wishes of the membership and the needs of the Association.

Respectfully submitted,
Joseph M. King, *President-Elect*.

REPORT OF THE SPEAKER OF THE HOUSE OF DELEGATES

To the President and House of Delegates:

As in the past, and as provided in the Constitution, there will be two meetings of the House of Delegates during the convention. These will be on Monday and Wednesday evening at eight o'clock. As there is a great deal of business to be transacted, and as these meetings are of necessity long and perhaps at times tedious, all delegates and alternates are urged to be prompt in attendance and to be in their seats at eight o'clock. The speaker desires to thank all delegates and alternates and members of committees for their cordial coöperation and efficient work in the past and to assure them that his only desire is to preside in an impartial and expeditious manner. All members of the Association are invited to attend the meetings of the House of Delegates as visitors.

Respectfully submitted,
E. M. Palette, *Speaker*.

REPORTS OF DISTRICT COUNCILORS

FIRST COUNCILOR DISTRICT

San Diego, Riverside, Orange, and Imperial Counties

To the President and House of Delegates:

The condition of the county medical societies in this district has shown an active improvement during the past year. New men have been admitted, and an effort is being made to increase the membership by getting in direct contact with men and women who are not at the present time members of the Association.

The financial condition of all of the societies has improved, and very few members have felt the necessity of dropping their memberships due to the present conditions.

There seems to be an unusually friendly feeling toward members in the various societies. Regular meetings are held, with occasional dinners preceding the meetings, at which time out-of-town speakers are the guests of the societies. I believe that the members are taking more active interest in their societies and in matters pertaining to the medical profession which are of an economic and legislative nature than in times past.

Respectfully submitted,
Mott H. Arnold, *Councilor*,
First District.

SECOND COUNCILOR DISTRICT

Los Angeles County

To the President and House of Delegates:

The councilor from the Second District feels that the membership in this district is aroused to the necessity of a firmer union among the physicians and surgeons, as manifested in the increase in membership and a decrease in delinquencies as appears in the following statistical summary given by Dr. H. H. Wilson, secretary-treasurer of the Los Angeles County Medical Association.

At the close of 1931 there were 2,010 members of whom 1,927 were paid memberships. There were

* These reports of officers, which were printed in the "Pre-Convention Bulletin" for the information of members of the House of Delegates, are here reprinted as an appendix to the minutes of the House of Delegates.

twenty-nine honorary members, twenty members were on leave, and fifteen were in military service. There were twenty-three reinstatements. The delinquency list for 1932 at this date is proportionately less than it was in 1931.

A striking fact is that the members of sections and branches are prompter in payment of dues than the residents of Los Angeles not affiliated with sections.

Doctor Wilson presents an interesting statement in the growth of the membership of this association, tabulated as follows:

	Members
1919.....	749
1920.....	898
1921.....	1036
1922.....	1235
1923.....	1317
1924.....	1453
1925.....	1549
1926.....	1590
1927.....	1674
1928.....	1726
1929.....	1851
1930.....	1904
1931.....	2010

This is of course gratifying, but the state register shows 3,784 registered physicians and surgeons in Los Angeles County as of March 1931, and it is reasonable to assume that a very considerable number of those nonmembers of the association are eligible and should be affiliated. It is very probable that certain requirements are to be modified which will result in a further and rapid increase in membership.

One of the most gratifying phases of the situation in Los Angeles County is the stimulated interest in medical organization by the younger element of the profession. During the past few years many unusually earnest and well-poised men have come into active parts in the economic and ethical governing side of the association. This interest is spreading, and high standards of self-sacrificing effort are constantly manifest.

It is to be noted that the scientific programs, particularly those given by the sections, are outstanding. Few county associations, outside of great medical centers, present programs of such variety and excellence. A perusal of almost any copy of the Bulletin will substantiate this statement.

Our affiliations with allied professions are intimate and valuable. The coalitions for the better functioning of these affiliations are well founded, with an assurance for the closest coöperation for mutual benefit.

The Woman's Auxiliary in this district has demonstrated its value to its members and to the county association, thus confirming the judgment of its founders and promoters. The field of its usefulness will extend as time goes on and as experience shows where and how it may do a greater and better work. This organization deserves every encouragement and assistance that can be given by the state and county medical societies.

Respectfully submitted,

William Duffield, *Councilor*,
Second District.

THIRD COUNCILOR DISTRICT

Kern, San Bernardino, San Luis Obispo, Santa Barbara and Ventura Counties

To the President and House of Delegates:

I herewith submit report of councilor of Third District:

Councilor visits have been made to each of the component county societies and without exception it was found that meetings were being regularly held, with frequent guest speakers. Not only was interest in local economic and health problems being shown, but many questions were asked in regard to the policy of the State Association, especially regarding the Committee on Public Relations and the Cancer Commission. A cancer clinic has been started in the Ventura County Hospital, and is functioning very well.

Respectfully submitted,

H. J. Ullmann, *Councilor*,
Third District.

FOURTH COUNCILOR DISTRICT

Calaveras, Fresno, Inyo, Kings, Madera, Mariposa, Merced, Mono, San Joaquin, Stanislaus, Tulare, and Tuolumne Counties

To the President and House of Delegates:

Each organized society in the district was visited during the fiscal year. It was suggested that each society have a county hospital committee to contact the board of supervisors and health units of their respective counties regarding medical matters. Reference was made to the Alameda and San Diego plans, but it was also suggested that, in order to get disinterested advice for both sides, they select only members who were not holding positions or desirous of securing such positions. A public relations committee was also advised.

All county societies in the district are active and alert to medical and economic conditions and therefore show more unity of action. Meetings were well attended; good programs are given by local men about once every year. Other programs are furnished by outstanding men from the various medical centers in the State. Merced County Society still maintains the highest ratio of members to number of licentiates. Tulare County Society membership should be increased. It was suggested that they appoint an active membership committee to solicit licentiates who, by educational, professional and social attainments, would be valuable additions to the organization.

In Inyo, Kings, Mariposa, and Mono counties there are no organized societies. Of the twenty-six licentiates in these counties, fourteen maintain membership in adjacent medical societies.

The Cancer Commission was responsible for meetings in Tulare, Fresno, and San Joaquin counties and a joint meeting at Modesto of Stanislaus, Merced, and Tuolumne counties.

Respectfully submitted,

Fred R. DeLappe, *Councilor*,
Fourth District.

FIFTH COUNCILOR DISTRICT

Monterey, San Benito, San Mateo, Santa Clara and Santa Cruz Counties

To the President and House of Delegates:

I respectfully submit the following report as councilor of the Fifth District:

San Mateo County.—At a meeting held at the Benjamin Franklin Hotel on the evening of March 30, Dr. W. M. Dickie gave a talk on the organization of county health departments. This subject is vitally important at the present time, as San Mateo County is preparing a new charter and the County Society is taking an active part in the preparation of that portion relating to public health administration. Dr. W. P. Shepard of the Metropolitan Life Insurance Company, also a guest at the meeting, brought out some important points on this subject.

Santa Clara County.—Regular monthly meetings are usually held in the Medico-Dental Building at San Jose. Interesting programs have been prepared. At a meeting held at the Santa Clara County Hospital February 17, Dr. Charles Dukes spoke on the "Work of the California State Cancer Commission." An opportunity was given the members to inspect the new service building of the hospital, which is the last word in completeness.

Monterey County.—Regular monthly meetings have been held for the most part at the San Carlos Hotel, Monterey. The attendance has been good. At the meeting of February 5, Dr. A. R. Kilgore gave a brief talk on the organization and objects of the newly formed Cancer Commission. Dr. Edwin L. Bruck then gave an interesting and instructive paper on "Pneumonia."

Santa Cruz County.—But three meetings were held during the year, and although good programs were arranged the attendance was only fair. Dr. O. C. Marshall, the new president, has arranged for monthly meetings for the coming year, and it is hoped that more interest will be shown in the society.

San Benito County.—A notice was sent to the secretary requesting that I be notified of their meeting dates. No reply was received.

Respectfully submitted,

A. L. Phillips, *Councilor,*
Fifth District.

SIXTH COUNCILOR DISTRICT

San Francisco County

To the President and House of Delegates:

The Sixth Councilor District at the present time is in very good condition.

During the past year the most noteworthy step has been the formation of a section on Medical Problems and Public Relations. This section meets on the second Wednesday of the month, which is not the regular meeting night, giving everyone interested the opportunity to attend. At these meetings the problems that are presented are assigned to committees for study and report. When such reports are made, the recommendation is passed on to the board of directors of the county society for such action as they may care to take. This plan insures thorough study and understanding of the questions which have so often not been acted upon because of lack of proper information.

The selection of Dr. J. C. Geiger to the position of director of public health, made vacant by the death of Dr. William C. Hassler, seems to have been a very fortunate choice both for the community at large and the medical profession in particular. Under our new city charter the old Board of Health has been eliminated and acts now only in an advisory capacity to the director of public health. The director of public health is in complete charge of all the departments of our rather broad health activities.

Doctor Geiger on accepting this position made it clear that he wished to act only after thorough study of each problem, and to this end wished the coöperation and advice of the San Francisco County Medical Society. When major problems have arisen he has asked for a committee of medical men to confer with him and has in this manner brought about the finest coöperation and understanding between his department and the medical profession. We are indeed fortunate in having such a well trained, broad and competent man in charge of our health activities.

The councilor year 1931-1932 began with possibilities of friction and discontent, largely due to misunderstanding. Happily a serious controversy did not arise and at the present time there is probably greater strength in our society than there has ever been. This is due mainly to the efforts of individual members as well as officers of the society to study each question fairly and to coöperate with one another. The future at this time would indicate that we are about to enter upon one of our most successful years.

Respectfully submitted,

Karl L. Schaupp, *Councilor,*
Sixth District.

SEVENTH COUNCILOR DISTRICT

Alameda and Contra Costa Counties

To the President and House of Delegates:

As councilor of the Seventh District, which comprises Alameda and Contra Costa counties, I wish to make the following report of activities during the year just passed.

The Alameda County Medical Association has had a most interesting and enthusiastic year, with eleven scientific programs, varied and instructive in character, and presented in the main by our own members. A few meetings were devoted entirely to clinics or lectures by visitors of note, including Doctor Haden of the Cleveland Clinic and Doctor Meakins, professor of medicine of McGill University, Montreal. Due consideration has been given in the year's programs to the business side of medicine as well as to malpractice, medical defense and the doctor as an expert witness. There has been a noteworthy increase in interest of

our members in the regular county meetings, and attendance has been unusually good.

The annual meeting of the Western Division of the American College of Surgeons was held in Oakland during this year, our society and its members being in large part responsible for its success.

Thirty-two new members have been added to our list, indicating a healthy growth. It is our purpose—and one in which we have succeeded in fair degree—to induce all young men in medicine to affiliate themselves with us by immediate application for membership, and they are extended all of the courtesies of the society during their probation period.

The association has enlisted the aid of the Woman's Auxiliary in contacting the Parent-Teachers associations in a campaign for the education of laymen, and speakers on medical subjects are being furnished through this organization. The association has given aid and advice to the Oakland Forum in their program of a series of public health lectures. Much has been accomplished in an educational way by the two series of popular lectures given during the fall of 1931 and the spring of this year by outstanding authorities on medical problems of interest to the layman.

The compilation of a history of the Alameda County Medical Association has been undertaken and is about ready for the rewrite workers and the finishing touches.

Our society is proud of the work of a special few of its members along the lines of medical economics, and views with pride the fact that county societies from far distant points in our state are looking to us for light on this important subject.

Recently a meeting was held of the delegates to the annual session of the House of Delegates at which the problems confronting the association were discussed.

Contra Costa County, as will be noted from the reports published in the JOURNAL, holds regular monthly meetings throughout the year except during June, July, and August. Contra Costa is a small county of but forty-one members, although the membership shows a steady increase each year. The meetings are exceptionally well attended. During the past year the society has discussed problems of medical economics, veterans' insurance, use of county hospitals, the work of the county health department in tuberculosis and public health relating to school children.

The scientific programs are well planned, and outstanding doctors from San Francisco, Oakland, and the surrounding communities are invited to present papers for discussion. The Woman's Auxiliary of the society is active in the county, and is often instrumental in planning the social functions which follow the scientific programs.

Respectfully submitted,

O. D. Hamlin, *Councilor.*

EIGHTH COUNCILOR DISTRICT

Alpine, Amador, Butte, Colusa, El Dorado, Glenn, Lassen, Modoc, Nevada, Placer, Plumas, Sacramento, Shasta, Sierra, Sutter, Tehama, Yolo and Yuba Counties

To the President and House of Delegates:

The report of your councilor for the Eighth District is this year very brief. As stated in the 1931 report, this district is one of magnificent distances covering an area much larger than some of the smaller states. In addition to mileage difficulties, the winter just passed has been the severest in the past two decades. The long period of inclement weather, coming as it did at the time when your councilor had planned his visits to the local county units, prevented his attendance as planned. For these reasons your councilor must confess that he has visited but two of the county units—those of Placer and Sacramento.

So far as can be learned, there has been no serious troubles coming before any of the component units of the California Medical Association, and your councilor has had no problems presented him for advice or decision.

Respectfully submitted,

Robert A. Peers, *Councilor,*
Eighth District.

NINTH COUNCILOR DISTRICT

Del Norte, Humboldt, Lake, Marin, Mendocino, Napa,
Siskiyou, Solano, Sonoma, and Trinity Counties

To the President and House of Delegates:

A brief report of the medical societies' activities in the Ninth Councilor District during the year 1931 is submitted.

During the past year the custom of joint society meetings, inaugurated in 1928, has been continued, thereby increasing interest and attendance at the society gatherings. Napa, Sonoma, Marin, and Solano societies have held two of these joint meetings, gathering for a seven o'clock dinner and social hour, followed by a discussion of important subjects and problems confronting the medical profession.

One entire meeting was devoted to "Medical Economics" at which Dr. J. B. Harris, Dr. Morton Gibbons, Dr. John Graves, and Mr. Peart were the speakers. There was an attendance of sixty-eight members of the county societies present at this meeting; a wonderful attendance, considering the size of the county societies and the distance many of the physicians must travel.

All of the medical societies in this district have been visited during the past year. The attendance and interest shown in the meetings indicates the individual interest that the medical men are taking in the work of their local and state society.

On March 20 a special meeting of the Humboldt County Society was held at the Humboldt Golf and Country Club. The individual members and the society put themselves to considerable inconvenience to hold a medical meeting at three o'clock on a Sunday afternoon so that they could meet our president, Doctor Harris, and myself and cause us the least loss of time in our work.

Humboldt County at the present time has a County Hospital problem which was causing considerable discussion and dissension. We feel that the free discussion of their problem at this meeting will result in the formation of a staff, appointed and controlled by the medical society. A resolution to this effect was unanimously adopted, with the appointment of a committee to interview the county supervisors at an early date.

The Ninth District is large and we find difficulty in arranging our practice to attend both Council and county society meetings, though we are endeavoring to the best of our ability to contact each society.

Respectfully submitted,

Henry S. Rogers, *Councilor,*
Ninth District.

REPORTS OF COUNCILORS-AT-LARGE*

To the President and House of Delegates:

I have visited in the past year but few of the county units in Southern California, but my observation is that there is little change in the status of the medical profession in this part of the State from that existing last year. Nearly all of the physicians whom I have contacted agree that the business depression has affected their economic conditions in the same or greater degree than in business generally. While there is practically the same call for the services of medical men, their incomes have been alarmingly decreased, but I think the members of the medical profession are meeting the situation as well or better than are the merchants.

I find the members of the profession are very much interested in the study of economic conditions and are hoping that the California Medical Association will

*The elected members of the Council consist of six councilors-at-large, nine district councilors, each of the latter representing a district or group of counties. These councilors-at-large, as officers, have their official responsibilities. Article XII, Section 3, which provides for a "Pre-Convention Bulletin," states that the bulletin shall contain a report from every officer. To that end the councilors-at-large were requested to send in reports on any matters in which they were interested and which perhaps might be worthy of consideration by the reference committees and House of Delegates.

assist in solving the difficulties of physicians and surgeons along this line. The physicians with whom I have talked are also much interested in the Public Relations Department of the California Medical Association, hoping that it may be able to work out a happy solution of the intimate relations that should exist between the lay public and members of the medical profession.

Respectfully submitted,

R. A. Cushman, *Councilor-at-Large.*

To the President and House of Delegates:

It has been my privilege to attend all the regular meetings of the Council for the past year and to share proportionately the responsibility for the action of that body.

Individually, and apart from the group work, my interests have largely been a continuation of the effort to secure better conditions in the State Hospital service and more harmonious relations between the medical profession and the Department of Institutions. In furtherance of that effort the president of the Association appointed me a member of an advisory committee to work with the Director of Institutions toward the consummation of this program. We have had several meetings with the director of the department which, I believe, have been of some benefit not only to the institutions and the people of the state, but distinctly helpful to those members of the profession who are interested in this department of medicine.

Your councilor's position in the Association and his membership in this committee have made it possible for much closer and more effective working cooperation with lay organizations who are similarly interested in this humanitarian work than would have been possible for him as a mere unauthorized member of the profession.

Such activities as have been undertaken suggest the great desirability of the coöperation of our committees and special medical groups all along the line with groups of lay people whose inclinations and interests lead them to a somewhat common point of view.

Respectfully submitted,

George G. Hunter, *Councilor-at-Large.*

To the President and House of Delegates:

This councilor-at-large has been impressed most forcibly during the past year by the agitated interest of the profession in the economic problems confronting it and the public and chiefly felt in the burden of costs which illness brings in its train.

In medical groups "shop talk" has been almost superseded by discussion of topics bearing upon the changed and changing aspects of medical practice, and the men are looking commandingly toward organized medicine for some concerted attempt to solve at least some of the problems.

They feel that their organizations should do something, and yet, like all individualists, they are very chary of suggestion and shy quickly from any "entangling alliances" with their professional brethren. The old training is very strong and, while clamoring for some Utopian scheme of collective effort, they tend to decry any tangible plan presented.

It would seem, though, that if organized medicine is not flexible enough to master the situation, lay plans and those of practitioners quick to seize upon the psychological moment to further their own interests, will do much to increase the difficulty of any real solution that will solve any appreciable part of the problem.

The California Medical Association, through its House of Delegates, has committed itself to leadership in this field, and the Department of Public Relations, with a doctor of medicine as its director, and the Cancer Commission, have begun, in the past year, their efforts to maintain a guiding hand in the relations between the public, the physician, and disease.

I, as a councilor, feel that I would not have discharged my obligation to the Association if I did not give short expression to some opinions upon the activity of the Association which have been crystallized by service as chairman of the Executive Committee.

The California Medical Association is no longer only a scientific and deliberative assembly, but has embarked, especially through its Department of Public Relations, upon a course, the successful and timely navigation of which will depend frequently upon the speedy decision and rapid action of those responsible for the individual units of the fleet.

Parliament, the Admiralty, and the naval staff meet only at comparatively infrequent intervals, and it would seem to me that it is about time that we of the Council consider the relinquishment or delegation of some degree of authority and responsibility to permit individual judgment and initiative to function rapidly in time of stress so that they need not be filtered through the often delaying and denaturing deliberations of the Executive Committee or Council while the immediate object of their use has passed out of range or beyond the horizon.

Generally, the routine of no successful business is run by committees or boards of directors, these serving to determine and fix upon broad policies and activities, and individual officers and employees are given the authority and charged with the responsibility of carrying them to successful conclusions.

So I think that every member of the House of Delegates, the Council, and thoughtful members of the California Medical Association should ponder upon the present policy which centers all authority in the Council between meetings of the House of Delegates and which results in the time of the Council and Executive Committee being consumed by the consideration of a ridiculous amount of detail which could be handled perfectly well and much more expeditiously if someone were granted the right to do it.

If the California Medical Association is to succeed in expanding its activities some such delegation of controlled freedom of action must be granted, else the governing body will exhaust itself chopping in the underbrush of detail before it ever puts a saw to the oak of accomplishment.

Careful selection must be made of those to whom we grant this authority and quick replacement must be the penalty for failure, but I think the time has come when we must realize that large activities cannot be managed in detail by committees whose members are scattered throughout the whole state.

For an example of the situation of which I speak, consult the published minutes of any Council or Executive Committee meeting of the past year.

Respectfully submitted,

T. Henshaw Kelly, *Councilor-at-Large*.

To the President and House of Delegates:

I believe we will look back on this year that is just closing as a very important one in the history of the California Medical Association.

There are a number of very important and far-reaching activities that have been started by the Association this year. One is the Cancer Commission, which should do much good in emphasizing to the profession the value of early diagnosis and of proper treatment.

The Department of Public Relations has also started its work in good fashion. A field secretary has been employed to act as director. The profession at large is today showing more interest in these economic problems than at any time in the past ten years. The desirability of a basic science law is becoming more evident each year.

The proposed changes on the Medical Practice Act are also being much discussed.

The lay public, also, is taking an unusual interest in public health questions and is looking more and more to organized medicine to show the way.

We should make an organized effort to get into our county medical societies all physicians who are eligible, especially the younger men. We should try

to educate them to the benefits of organized medicine. Everywhere changes are taking place. It is important that we should be alert as regards the profession of medicine.

Respectfully submitted,

W. H. Kiger, *Councilor-at-Large*.

To the President and House of Delegates:

As all important matters will be thoroughly covered by the reports of the officers and standing committee, I will discuss in my report only one subject—a subject, however, which, in my opinion, is of vital everyday interest to every member of the Association. This subject is the Medical Society of the State of California and Optional Defense.

As former chairman of the Medical Defense Committee, and as an officer of the Alameda County Medical Association, I have come in close contact with the work of the Medical Society of the State of California. I believe that far too many of the Association members are not informed of the very necessary and uniformly efficient and satisfactory service rendered by this suborganization of the Association.

No matter how many insurance policies covering malpractice defense a man may have, nor how good the service of the insurance companies may be, there is always room for and need of the service of the skillful and trained personal attorneys made available by Optional Defense. The cost is so low, compared with the service received when the doctor's reputation and standing are attacked, that I know of no more important work at this time than the bringing of these facts to the attention of our members.

It is recommended that all county societies devote at least one meeting each year to public relations, one to medical defense and the discussion of expert testimony, and one to medical economics and similar problems.

Respectfully submitted,

George G. Reinle, *Councilor-at-Large*.

REPORTS OF STANDING COMMITTEES*

COMMITTEE ON ASSOCIATED SOCIETIES AND TECHNICAL GROUPS

Executive Group

R. Manning Clarke, Chairman, 1934
Harold A. Thompson, 1932 William Duffield, 1933

To the President and House of Delegates:

I beg to submit the following as the annual report (1931) of the Committee on Associated Societies and Technical Groups:

During the year this committee has had contact with many different groups, all of which have been pleasant, as well as mutually helpful. There are three outstanding groups that have comprised our major contacts.

The Woman's Auxiliary to the California Medical Association has made a splendid start toward perfecting their organization. They are accomplishing great things, when one considers the length of time they have been organized and functioning as a separate body. The only thing I wish to mention in this report is, that there are several counties that are not organized. I believe it would be advantageous to the California Medical Association as well as the Woman's Auxiliary if the Council could take some steps that would make it clear to all that organization is desired in all counties of this state. The character of the opposition in some counties makes it perfectly clear that it is not well understood by those forces opposing the organization, that the California Medical Association is really fostering this movement and wishes it to advance as rapidly as possible.

While on this subject, I am sure that the Council is well aware of the brilliant work that has been done by these good people, and those interested in it. And

*Members of Standing Committees are urged to meet during the annual session and organize for the coming year and to hold at least one regular meeting of their respective committee during the annual session.

it is the belief of my committee that if it is properly fostered and helped it will be a power toward educating the public and assistance at influencing legislation in this state.

The second group on which we wish to report is that of the dietitians. This is a small group in the state; nevertheless it is a field in which there are so many quacks, charlatans, food faddists, etc., that there needs to be a great deal done to clear the field, and standardize the work of this group. There are many earnest workers and splendid minds being bent over this problem. Difficulties are gradually being ironed out, and no doubt something will come of it in due time. It is the desire of those active in this field that the group be properly organized and given a proper status in the Governor's cabinet. Since the group is very small, the financial and other difficulties that have arisen in the way of their organization have seemed a little bit large. However, I believe the problem will ultimately be successfully solved. The needs for regulation in their field is evident. I also believe that it is well worth the attention of the California Medical Association, for there is no other group that can so well foster it, guide and control its activities, as our own.

The third group I wish to mention is that of the dental group. With them we have had many pleasant connections. Joint meetings are being held every year between county societies of dentists and physicians. These result in much mutual benefit and, I believe, greatly increases the moral and political influence that the dentists give us in the legislation which we attempt to put over in the state legislature. It is the belief of our committee that we should do everything we can to strengthen this contact, for their help is invaluable in many ways.

Respectfully submitted,

R. Manning Clarke, *Chairman*.

COMMITTEE ON EXTENSION LECTURES

Executive Group

Robert T. Legge, Chairman, 1934

James F. Churchill, 1932 Robert A. Peers, 1933
The Secretary, ex officio

To the President and House of Delegates:

Your Committee on Extension Lectures herewith present to the California Medical Association their annual report.

We believe the system of securing and listing with our secretary qualified accomplished physicians, members of our Association, who are willing to prepare and read papers before county units, is an excellent one.

We desire at this time, on behalf of the California Medical Association, to thank these members for their contributions and request that they allow their names to remain on our list with such revision of topics as they may determine. May we solicit from the membership other members who desire to offer papers on special problems in medicine or public health and request that they submit their names to the chairman with the title of the subject they are prepared to discuss.

The secretary has on hand a list of moving-picture film organizations who will provide and rent films on subjects of interest to general practitioners and specialists as program material.

The committee desires to request each member of our Association, the faculty of the universities, deans of the medical schools, and secretaries of the medical and public health societies to communicate with the office of the California Medical Association in San Francisco whenever they know of visiting notables in the medical profession who might be available as speakers, advising their names and the topics of their addresses.

Your chairman has conferred with Dean Porter of the University of California Medical School regarding the resolution passed at the two hundredth meeting of the Council, promoting a plan for postgraduate instruction and consultation service, and also the edu-

cation of the public through county medical societies. The initial plan as outlined by this Educational Committee was to provide ten teams, each consisting of a chairman and two colleagues, prominent members of the medical profession, not selected from any particular university or hospital group, who are disposed to serve and give their time when invited by a County Medical Society or Council District, to hold a clinic, deliver a community educational address, and on the evening of that day, following a dinner, present their papers to the members of the County Medical Society which invited them. Each team will be composed of members prepared on a special subject, as for instance, cancer, the team consisting of an internist, a surgeon, and a roentgenologist. A clinic will be established by the County Medical Society at a local hospital, for demonstration of patients, methods of diagnosis, treatment, etc. A prearranged luncheon might be given by one of the service clubs, or an educational meeting at the High School or Town Hall might be given under the auspices of the County Medical Society where one of the members of the team can address the public on public health or some popular medical subject.

The County Medical Society who invites the speakers makes all the necessary arrangements, securing the clinic material, advertising the community health meeting, and the dinner and evening program. The team will receive from the County Medical Society their traveling and other necessary expenses as well as a worthwhile outing. For convenience and the saving of time for the speakers the teams could be recruited from various parts of the state. The bookings will be made through the secretary of the California Medical Association, 450 Sutter Street, San Francisco.

Your committee suggests that the deans of the four regular medical schools in the State of California be persuaded to prepare and arrange one day per year to hold clinics, demonstrations and operations, likewise lectures for members of the medical profession, bringing before the profession the newer developments in medical science. Stanford and the University of Southern California might arrange to hold their clinics in the fall semester, and the University of California and the College of Medical Evangelists at Loma Linda in the spring semester, so that two postgraduate clinics per year could be held in northern and southern parts of the state.

It is suggested that a page in the official journal be devoted to educational and extension service so as to keep the secretaries of the county medical societies, medical schools, hospitals, and allied groups informed, listing thereon the subjects and personnel of the postgraduate teams, extension lectures, scientific moving pictures, program for the month, coming events, conventions, alumni and university clinics, etc. This page could be sent to all interested groups, to be posted on their bulletin boards.

Another important feature of the extension work is the developing of a medical library service closely affiliated with Lane or the University of California Medical libraries, enabling physicians to obtain journals, books, reprints, and bibliographies. The cost of mailing packages both ways and preparing the material would be defrayed by the physician.

Respectfully submitted,

Robert T. Legge, *Chairman*.

COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION

Executive Group

Fred B. Clarke, Chairman, 1932

Henry S. Rogers, 1933 Langley Porter, 1934

Advisory Group

Howard Updegraff, Los Angeles	J. Frank Friesen, Los Angeles
J. Rollin French, Los Angeles	Walter Brown, Palo Alto
Percy T. Magan, Los Angeles	William P. Shepard, San Francisco

To the President and House of Delegates:

The resolution passed by the House of Delegates, creating a Public Relations Department at the meeting of the State Association in San Francisco in 1931,

led the Committee on Health and Public Instruction to believe that their ideas and plans could be best carried out by the Director of the Department of Public Relations.

The following thoughts and suggestions from the Committee on Health and Public Instruction have been presented to the Committee on Public Relations as representative of our ideas of the activities that should be carried out in behalf of this committee.

Radio Broadcasting.—It has been amply demonstrated in the various organizations that radio broadcasting is of a great deal of importance, and we feel that broadcasting could be arranged which would include one of the stations in Los Angeles and one in San Francisco to carry our message to the people.

In this connection I may advise you that for the past nine months the Los Angeles County Medical Association has been broadcasting over KECA and KFI twice a week. When the Publicity Committee of the society contacted these radio stations they were received very courteously, and all the stations in Los Angeles promised to give us time gratis over their stations and these two were chosen out of the entire number.

Press.—Publicity through the press by means of which we feel there is a possibility to change the attitude of the minds of the public and by which we believe that it would be possible to create a better understanding of the problems which confront the medical profession. This type of publicity can only be properly presented by someone experienced in publicity.

Educational Films.—The use of motion pictures in educational work is well recognized and we believe that the coöperation of the various boards of education can be secured, to the end that the health educational films may be exhibited in the various Junior and High schools as well as in the Junior colleges of the state.

Educational Literature.—Literature dealing with the prevention of disease and symptoms pointing to its early recognition can be cheaply distributed to each and every house in the city, and has been amply demonstrated by the harbor branch of the Los Angeles County Medical Association in conjunction with the Long Beach Tuberculosis Association.

A description of this plan was submitted to the House of Delegates at the May 1931 meeting, and a short description of it appeared in the journal of the State Medical Association of six months ago.

We feel that in the publication of *Better Health* the profession have a means of bringing valuable information to the lay reader, and it is our belief that an organized effort to place this well worthwhile journal in each home, especially where there are growing children, could be developed.

Speakers' Bureau.—It is our earnest suggestion that each County Medical Society develop a speakers' bureau, using care in the selection of men and the subjects to be presented, and then make it their business to furnish speakers to the Parent-Teacher Association, women's clubs, service clubs, and commercial organizations. This has been done in a number of instances, and furnishes a means of bringing to the laity many subjects in which they are vitally interested.

Exhibits for Fairs.—It was the hope of the Committee on Health and Public Instruction that exhibits could be developed for the State Fair, as we felt that they would be very valuable indeed from the standpoint of public education, but it has not been possible to carry out our plan submitted to the Council last year in this regard. We feel that such a plan is feasible, well worth while, and wish to call attention to the suggestions made in a report to the Council in May, 1931.

Publicity Through Leaflets.—It is our belief that one of the most important ways of bringing to the largest group of people various facts relating to the preven-

tion of disease, hygiene, etc., would be in the preparation of leaflets of a size so that when folded they can be inserted into envelopes, furnishing them to all the doctors in the state, with the hope and expectation that they are to include these leaflets in all their bills sent out the first of each month.

The preparation of such leaflets is very important and they would be prepared with the end in view that a closer relationship will exist between the patient and the doctor, and with the hope that a greater confidence in the medical profession can be secured.

These pamphlets could be prepared at a minimum expense, mailed from the central office the 15th of each month to all physicians in the state. The preparation of such leaflets is one upon which a great deal of thought should be expended in order that they may be made interesting as well as instructive. The services of a publicity man well trained in such matters would probably be necessary.

"In connection with the above, wish to advise you that the Pierce County Medical Society, which includes Tacoma, in the State of Washington, have conducted such an educational campaign and it is interesting to note that finances for the organization were collected by voluntary contributions up to about \$4500, paid by eighty members of the Association.

"The amount of money raised is to be spent for articles appearing in the newspapers only. This will cost between \$3000 and \$4500.

"Each month we are printing one thousand leaflets of each article that has appeared during that month. These leaflets are distributed by the doctors to their patients. There will be a booklet prepared containing all of the articles and a roster of the Pierce County Medical Society which will be distributed in the public libraries, schools, and any other place where they may be referred to."

It is very gratifying indeed to the chairman of this committee to know that the suggestions made to your Committee on Public Relations were being carried out successfully by another medical organization, although this latter fact was not known to me at the time these suggestions were made.

Respectfully submitted,

Fred B. Clarke, *Chairman.*

COMMITTEE ON HISTORY AND OBITUARIES

Executive Group

Charles D. Ball, Chairman, 1932	
Emmet Rixford, 1933	The Secretary, ex officio
George D. Lyman, 1934	The Editor, ex officio

Advisory Group

William LeMoyne Wills,	George L. Cole, Los Angeles
San Marino	William H. Geistweit, San Diego
Frank D. Bullard,	Robert F. Rooney, Auburn
Los Angeles	John C. King, Pasadena

To the President and House of Delegates:

Your Committee on Histories and Obituaries begs to report that during the year 1931 sixty-three deaths of members have been recorded. The appended list has been gathered from CALIFORNIA AND WESTERN MEDICINE and from the "List of Members of California Medical Association—1932."

Only ten obituaries were published in the official journal in 1931.

It is the opinion of the chairman of your committee that the death notices should convey more information or that more obituaries should be written. Work along historical lines is rarely lost.

Referring to histories of county medical societies, the record of achievement has not been very good, but it is hoped that historical data and papers are being gathered.

Orange County has deposited with the State Association a brief but complete history from the time it was organized. San Diego County is also preparing such a history. San Bernardino County is considering the task, as is Riverside County. It is hoped that many more of our county societies will see fit to push their historical work to completion.

Respectfully submitted,

C. D. Ball, *Chairman.*

APPENDIX TO COMMITTEE'S REPORT

Showing recorded deaths of members of the California Medical Association who died in the year 1931:

Anderson, Bennett C., San Bernardino, died March 14, 1931, age 85.

Bemis, Orion Irving, Modesto, died December 7, 1931, age 62.

Briggs, William E., Sacramento.

Burnham, Marjorie Bonthron, San Diego, died June 26, 1931, age 54.

Caldar, James Squair, Los Angeles, died August 30, 1931, age 90.

Coburn, Elwyn Stevens, National City, died August 26, 1931, age 67.

Coleman, Charles La Grange, Oakland, died July 25, 1931, age 52.

Coleman, Herbert Rockwood, San Francisco, died September 7, 1931, age 41.

Copeland, John Charles, San Diego, died December 31, 1931, age 59.

Cowden, Ambrose Franklin, Santa Cruz, died February 18, 1931, age 52.

Cunningham, Benjamin Frazier, Paso Robles, died February 8, 1931, age 61.

Dawson, William C., San Francisco.

Deal, Louise Bacon, San Francisco, died June 16, 1931, age 66.

Donnelly, Edward Francis, Napa, died September 20, 1931, age 69.

Emerson, Henry K., Los Angeles, died January 1, 1931, age 63.

Engel, Charles Paul, Colton, died April 29, 1931, age 42.

Fancher, Charles Rousseay, Oakland, died June 25, 1931, age 36.

Fuller, Winifred LeRoy, Manila, died April 12, 1931, age 52.

Fulton, Dudley, Los Angeles, died March 22, 1931, age 57.

Garland, James Asa, Los Angeles, died February 15, 1931, age 60.

Green, Jacob Samuel, Oakland, died April 20, 1931, age 54.

Haas, Adam Adolph, San Francisco, died July 26, 1931, age 58.

Hamilton, Jo., Alameda, died September 19, 1931, age 57.

Hamman, Amos F., Los Angeles, died September, 1931, age 57.

Hassler, William Charles, San Francisco, died August 1, 1931, age 63.

Hayden, Thomas M., Carmel, died August 3, 1931, age 77.

Heaney, Robert Harold, Yreka, died March 18, 1931, age 40.

Holmes, Will Hammond, Riverside, died June 5, 1931, age 44.

Hoover, Frank Bernard, San Jose, April 12, 1931, age 48.

Hubbell, George Rucian, San Francisco, died September 15, 1931, age 64.

Keck, Frederick Charles, San Francisco, February 16, 1931, age 66.

Keller, Peter Martin, Glendale, October 1, 1931, age 58.

Langley, Elmer Ellsworth, Los Angeles, died November 12, 1931, age 49.

Lewitt, Frederick Clinton, San Francisco, died June 16, 1931.

Loper, Asbury Nelson, Tulare, died May 2, 1931, age 72.

Lucas, William Thomas, Santa Maria, died March 21, 1931, age 81.

Maher, Thomas Davis, San Francisco, died June, 1931, age 57.

Mahoney, Margaret Josephine, San Francisco, died December 7, 1931, age 73.

Malpas, Ida May Lathrop, San Francisco, died June 17, 1931, age 56.

McGettigan, Charles D., San Francisco, died January 23, 1931, age 58.

Mead, Francis H., San Diego.

Meyers, Isadore Leon, Long Beach, died August 16, 1931, age 48.

Moseley, Gayle Graham, Redlands, died June 17, 1931, age 57.

Nichols, William Van Devere, Oceanside, died March 16, 1931, age 70.

Northrup, Fred Detmar, South Pasadena, died June 7, 1931, age 56.

Packard, Charles Walter, Los Angeles, died March 18, 1931, age 58.

Servin, Guillermo Ramon, Los Angeles, died April 11, 1931, age 70.

Slaughter, Theron Hart, Long Beach, died September 9, 1931, age 43.

Smith, Sydney Henry, San Francisco, died December 17, 1931, age 52.

Smith, Walter A., Modesto.

Snyder, James Roe, Sacramento, died April 19, 1931, age 43.

Stigall, Clarence G., San Diego.

Strader, Harvey W., Sacramento.

Suttner, Conrad Nicholas, Los Angeles, died July 14, 1931, age 63.

Taylor, James Edward, Redding, died August 3, 1931, age 59.

Walters, William Alexander, Los Angeles, died December 25, 1931, age 52.

White, Carlos M., Visalia.

Wilbur, Hubert Granville, Long Beach, died January 25, 1931, age 52.

Williams, Thomas Arthur, Pasadena, died March 30, 1931, age 66.

Mindmueller, Emil, Sacramento, died June 29, 1931, age 62.

Winn, Albert, Los Angeles, died March 20, 1931, age 71.

Woolsey, Mark Hopkins, San Francisco, died January 28, 1931, age 67.

Wright, Harold Walgrove, Ojai, died July 12, 1931, age 78.

County Society Committees on History and Obituaries

Alameda—
 Frank R. Makinson, Chairman, Oakland
 E. E. Brinckerhoff, Oakland
 H. W. Harding, Oakland
 Claire Raser, Oakland
 Harold G. Trimble, Oakland

Butte—
 P. L. Hamilton, Chico
 F. M. Whitney, Oroville
 N. T. Enloe, Chico

Contra Costa—
 C. R. Blake, Richmond

Kern—
 E. J. Gundry, Bakersfield
 J. M. Kirby, Bakersfield
 P. N. Root, Bakersfield

Los Angeles—
 John V. Barrow, Los Angeles
 R. Manning Clarke, Los Angeles
 Harold E. Crowe, Los Angeles
 Thomas McHugh, Los Angeles
 William Mulvehill, Los Angeles
 Phillip Stephens, Los Angeles

Mendocino—
 L. K. Van Allen, Ukiah

Merced—
 W. E. Lilley, Merced
 K. Kyleberg, Merced

Monterey—
 G. Parker, Salinas

Napa—
 W. L. Blodgett, Calistoga
 C. A. Johnson, Napa
 A. K. McGrath, Napa

Orange—
 Charles D. Ball, Chairman, Santa Ana
 Frank H. Gobar, Fullerton
 Robert S. Wade, Santa Ana

Placer—
 Robert F. Rooney, Auburn

San Bernardino—
 Frank Pritchard, Chairman, Colton
 W. H. Craig, Upland
 John N. Baylis, San Bernardino

San Diego—
 George B. Worthington, San Diego
 C. A. Burton, San Diego
 Fred Baker, Point Loma

San Francisco—
 Henry Harris, Chairman, San Francisco
 George D. Lyman, San Francisco
 Douglass W. Montgomery, San Francisco
 J. Marion Read, San Francisco
 Clarence Quinan, San Francisco

San Joaquin—
 B. J. Powell, Sr., Stockton
 Margaret Smyth, Stockton
 S. E. Latta, Stockton

Santa Barbara—
 P. C. Means, Santa Barbara

Tehama—
 Frank J. Bailey, Red Bluff
 Frank L. Doane, Red Bluff
 Ernest E. Thompson, Red Bluff

Stanislaus—
 E. F. Reamer, Chairman, Modesto
 Fred R. McKibbin, Oakdale
 Alfred Roscoe, Newman

COMMITTEES ON HOSPITALS, DISPENSARIES AND CLINICS

Executive Group

John C. Ruddock, Chairman, 1932
 Wallace Dodge, 1933
 Karl L. Schaupp, 1934

To the President and House of Delegates:

During the year this committee has had no formal meeting, but the members have kept in touch with one another through correspondence and occasional informal meetings.

At the last meeting of the California Medical Association a resolution, adopted by the House of Delegates, brought into being a Department of Public Relations, of which this committee became an integral part, and the chairman of which became automatically a member of the Committee on Public Relations.

In addition to the duties as defined for the Committee on Hospitals, Dispensaries, and Clinics, there have been presented to the committee for report two additional resolutions, as adopted in the second meeting of the House of Delegates at the last annual meeting of the Association.

Clinic Survey.—The first resolution stated that a survey be made of existing clinics and facilities, with the need of others; and that a plan of direction be submitted to be drawn up by the various county medical societies in coöperation with the social service agencies and citizens of the community.

Health Centers.—The second resolution had to do with defining the scope of practice of the health officer and the practicing of the private practitioner in the care of the indigent sick in a community.

Clinic Survey.—The committee have felt that a survey of existing clinics and gathering information concerning these would require the services of a full-time worker and would be the cause of an expense item against the California Medical Association, and they recommend that this matter be referred to the Public Relations Department of the California Medical Association, which has at its disposal clerical help for conducting such surveys.

In addition, the committee have turned over to the Director of the Department of Public Relations all existing material available on this subject for filing, and for such use as the Department may see fit.

In addition, the individual members of the committee are busy collecting such data as they may have at their disposal for the use of this Department.

The members of the committee have been busy with their respective county units, helping them to outline a plan of direction which may be applicable to the individual county units and individual problems of the various communities in which these clinics are situated.

Clinic Legislation.—The matter of clinic legislation has been clearly discussed by our committee as well as in the Department of Public Relations; and it is thought wise at this time, in view of the unrest as noted in the various attempts to solve the economic question of medicine, and in view of the lack of a survey of existing laws which may conflict at this present time with clinic legislation, to refer action on this matter to a special committee appointed by the chairman of the Committee on Public Relations, composed of Dr. Junius B. Harris, chairman of the Legislation Committee; Mr. Hartley F. Peart, legal counsel of the California Medical Association; and Dr. John C. Ruddock, chairman of the Committee on Hospitals, Dispensaries, and Clinics of the California Medical Association. This special committee as yet has made no report concerning such legislation.

Standards for Clinics.—The committee feels that there should be a definite legal curb placed upon the formation of clinics, organized either for profit or non-profit in the care of the indigent and near-indigent population. Clinics today are being formed without any regard to the standards and proper practice of medicine, and the committee feels that the California Medical Association is deeply interested in the matter, and should concern itself to the degree that the indigent and near-indigent receive medical care of the highest quality, and that these clinics should be centered in the population and so controlled that they do not interfere with the private practitioner of medicine.

With this thought in view, the committee has made up and has submitted to the Council of the California Medical Association a "Minimum Standard for Clinics for the Needy and Indigent." The Council of the California Medical Association has adopted these, and has caused them to be sent, through the Department of Public Relations, to each and every clinic, of which a proper address was available, in the State of California.

The committee feels that standards of this type should be made up for each and every type of clinic that we have, as the society is interested in the type of medicine that is delivered to the community.

Dispensing Information.—The committee has been called upon from time to time throughout the year by the Council, by the Association secretary, and by various individuals in the society to furnish them with

information concerning clinics, to answer correspondence which has been referred to the committee from outside organizations, both medical and social service. These have been answered.

Health Centers.—The committee has caused to be formed a questionnaire in regard to activities of health officers and health departments in the state. This questionnaire has been delivered to each county medical society unit throughout the state, with the request that it be filled out by the individual units, which units know their own problems better than any investigating committee, and that these questionnaires be returned promptly. To date, there have been returned a relatively few of these questionnaires, and the committee feels that it is unable to make a detailed report which will cover the State of California.

However, the committee feels that it is now able at this time to make a general report in regard to the general situation which may be applicable to each and every county unit.

The matter of the relationship between the health officer and the private practitioner is a far-reaching one, and a great deal of controversy and misunderstanding may develop from time to time, dependent upon various factors such as:

1. The attitude of the Board of Supervisors toward the proper care of the indigent sick in the county.
2. The attitude of the Board of Supervisors in regard to the care of the low-salaried population in the community in regard to medical attention.
3. The attitude of the health officer.
4. The attitude of the Welfare or Charities Department of government.
5. The attitude of various outside agencies toward this matter.
6. The attitude of the private physician.

The relationship between the private physician and the health officer may be summed up into two phases:

1. The application of public health measures to the community.
2. The care of the indigent sick.

When these two phases are combined, unless there has been a very careful organization, which includes the organized medical society, then local disagreements, dissatisfaction and misunderstandings occur between the Department of Health and the private practitioner.

The committee feels that the duties of a health officer may be summarized as follows:

1. The control of communicable disease.
2. Sanitation and inspection.
3. Vital statistics.
4. Public health education.

The committee feels that the treatment of the indigent sick, and conducting emergency hospitals are not the duties of a health officer unless so delegated to him by statute.

The committee feels that it is necessary, in conducting public health education, that certain clinics be held for such purposes, but not for treatment.

The committee recommends that the various county societies within the state society interest themselves in this field, and that the organization and work, as carried on in this regard, be under the supervision and with the coöperation of the representative county societies.

It is recommended that the various and respective boards of supervisors contact the medical society and, in conjunction with the health officer, work out a program which is to the best interest of the community, the medical personnel which gives its time gratis to the cause, and the health officer in his application of public health tenets.

It is further recommended that the California Medical Association pass a resolution to the effect that it is deeply interested in the welfare of each and every physician in the State of California; and that it is

interested in the type of medicine practiced by each and every individual doctor in the State of California; and that it is deeply interested in the medical care of the indigent sick of the State of California; and that it is deeply interested in the welfare of each and every individual citizen in the State of California; and that it is interested in the proper application of health and sanitation measures in the State of California; and that every individual member of the California Medical Association stands ready to give his services and to assist in every way possible in any application to improve any of the above-mentioned phases; and because of the interest so manifested by the California Medical Association, through its formation of the Department of Public Relations of the California Medical Association, it feels that it should have a voice in the matter of reorganizing institutions which affect so materially the medical profession, the citizens, and the constituted authorities of government.

Respectfully submitted,
John C. Ruddock, *Chairman*.

COMMITTEE ON INDUSTRIAL PRACTICE

Executive Group

Packard Thurber, Chairman, 1932
Mott H. Arnold, 1933 Daniel Crosby, 1934

To the President and House of Delegates:

As chairman of the Committee on Industrial Practice, I wish to say that the only issue presented to the committee was the matter of certain insurance companies attempting to force fees below the regular Industrial Accident Commission schedule on certain doctors in the Santa Cruz district. I forwarded copies of all communications to the central office and members of the committee.

Respectfully submitted,
Packard Thurber, *Chairman*.

COMMITTEE ON MEDICAL DEFENSE

Executive Group

Henry Snure, Sr., Chairman, 1934
George G. Reinle, 1932 Fred R. DeLappe, 1933

To the President and House of Delegates:

An excellent outline of the activities of the "Optional Defense" Society was given by the committee in the two previous bulletins, therefore will not be repeated here.

The number of suits filed last year were not as large as anticipated. For instance, only five suits were filed in Los Angeles County during the year that involved members of this society. Two suits involving members of the society were dismissed during the year and one old threatened matter was disposed of without suit in Southern California. In the northern counties four threatened actions and twelve cases were disposed of.

The attorneys for the society, of course, act as the personal attorneys for the member, in coöperation with the insurance attorneys, in all matters where the member of the society is covered by an insurance policy in any one of the companies covering physicians. In all threatened matters, as well as suits, the member of the society involved has the benefit of the advice and assistance, therefore, of his personal attorneys, and wherever necessary they take active part in the trial itself. I think that the largest benefit to members of the society is the fact that they have intimate touch with these attorneys for the society who directly represent them, and from their long experience in such matters and their understanding of the physician's situation, are able to give close personal attention to the problem.

The cost of the defense service is only \$10 per year, truly a small sum for one's peace of mind and security. It is appreciated most by those who have experienced the unpleasantness of a suit, and the slogan of its greatest boosters is similar to that of a well-known car, "Ask the man who has had one."

The December meeting of the Alameda County Medical Association was devoted to the study of optional medical defense, including discussion on how to keep from being sued and on the medical expert on the witness stand. It proved to be a very worthwhile meeting, and it is suggested that similar meetings be held by other county medical associations during the coming year.

The committee strongly urge all members of the Association to subscribe for the "optional defense." The Association secretary will be glad to furnish information in regard thereto.

Respectfully submitted,
Henry Snure, Sr., *Chairman*.

COMMITTEE ON MEDICAL ECONOMICS

Executive Group

John H. Graves, Chairman, 1932
Joseph M. King, 1931 Ruggles A. Cushman, 1933

Advisory Group

John H. Breyer, Pasadena	Daniel Crosby, Oakland
Harvey G. McNeil, Los Angeles	Jesse W. Barnes, Stockton
William B. Wright, Jr., Los Angeles	Fred R. DeLappe, Modesto
Walter B. Coffey, San Francisco	Ferdinand Stabel, Redding
Rodney Yoell, San Francisco	Warden T. Barr, Fresno
Fred B. Clarke, Long Beach	Morton R. Gibbons, San Francisco
	Rexwald Brown, Santa Barbara

To the President and House of Delegates:

The Committee on Medical Economics desires to report that during the past year there is every evidence of greatly increased interest in the various problems that this committee was organized to study.

A large subcommittee was formed the members of which were chosen from many different communities throughout the state.

The formation of a Public Relations Committee left the Committee on Medical Economics somewhat uncertain as to the proper sphere of the committee's activities.

A clearer definition of what the committee is supposed to do during the coming year is greatly needed.

Respectfully submitted,
John H. Graves, *Chairman*.

County Society Committees on Medical Economics

Alameda—

Daniel Crosby, Oakland
Harry Appledorn, Oakland
Mark L. Emerson, Oakland
Clarence W. Page, Oakland
T. C. Lawson, Oakland
Howard Trimble, Oakland
Frank Makinson, Oakland
J. W. Sherrick, Oakland

Butte—

E. R. Meyers, Chico
W. J. Costar, Jr., Chico
W. B. Johnson, Chico

Contra Costa—

L. Abbott Hedges, Richmond
W. E. Cunningham, Richmond

Kern—

P. F. Page, Taft
Joe K. Smith, Bakersfield
R. M. Jones, Bakersfield

Merced—

W. C. Cotton, Atwater
Chester A. Moyle, Merced
A. S. Parker, Merced

Monterey—

R. A. Workman, Pacific Grove

Napa—

D. H. Murray, Napa
L. Welti, Napa
H. V. Baker, Napa

Orange—

Ruggles Cushman, Chairman, Santa Ana
Dorsey A. Harwood, Santa Ana
Willis P. Baker, Santa Ana

Riverside—

William R. Dorr, Riverside
W. W. Roblee, Riverside
W. B. Wells, Riverside

San Bernardino—

C. G. Hilliard, Chairman, Redlands
C. F. Whitmer, Colton
W. F. Pritchard, San Bernardino
F. F. Abbott, Ontario
E. J. Eytinge, Redlands

San Diego—

C. L. Stealy, San Diego
L. H. Redelings, San Diego
Hall G. Holder, San Diego

San Joaquin—

H. E. Kaplan, Chairman, Stockton
A. L. Van Meter, Stockton
H. S. Chapman, Stockton

Santa Barbara—

Rexwald Brown, Santa Barbara

Santa Clara—

J. H. Shephard, San Jose
S. B. Van Dalsem, San Jose
C. S. Sullivan, San Jose

Santa Cruz—

J. Harrington, Santa Cruz
E. Eiskamp, Watsonville
A. C. Atwood, Soquel

Stanislaus—

J. A. Porter, Chairman, Modesto
L. O. Weisner, Modesto
H. B. Stewart, Ripon

Ventura—

W. S. Clark, Ventura

COMMITTEE ON MEDICAL EDUCATION AND MEDICAL INSTITUTIONS

Executive Group

George R. Dock, Chairman, 1932
George G. Hunter, 1933 H. A. L. Ryfkogel, 1934

To the President and House of Delegates:

This committee has had no meeting, and has had no communications brought to its attention.

I suggest that the work of the committee be continued.

Respectfully submitted,

George Dock, *Chairman*.

COMMITTEE ON MEMBERSHIP AND ORGANIZATION

Executive Group

LeRoy Brooks, Chairman, 1931
Harlan Shoemaker, 1932 The Secretary, ex officio
Jesse W. Barnes, 1933

Advisory Group

Fred B. Clarke, Long Beach J. P. Nuttall, Santa Monica
Claude V. Thompson, Lodi H. V. Brown, Glendale
Fred Gundrum, Sacramento H. T. Brooks, Alhambra
Lewis F. Morrison, Dewey R. Powell, Stockton
San Francisco John H. Breyer, Pasadena

To the President and House of Delegates:

Your standing Committee on Membership and Organization beg to submit the following as their annual report:

The state office reports that 363 new members joined the Association in 1931. With the exception of 1928, when 453 members were added, this is the largest addition in the past five years.

Due doubtless to the general financial depression losses from delinquencies and through resignations were greater than usual. Twenty more members resigned and 164 were delinquent. The actual gain for the past year, while but 124 carried the membership of the California Medical Association above the 5000 mark.

It is the earnest hope of your committee that the average yearly gain of 200 members will be greatly increased this coming year. Your committee recommends to each component county society the establishment of a committee on membership, whose duty shall be a survey of all unaffiliated licentiates and a personal invitation to all those deemed eligible to membership in the California Medical Association.

Respectfully submitted,

LeRoy Brooks, *Chairman*.

COMMITTEE ON PUBLICATIONS

Executive Group

Percy T. Magan, Chairman, 1934
The Secretary, ex officio Morton R. Gibbons, 1932
The Editor, ex officio Frederick F. Gundrum, 1933

To the President and House of Delegates:

Your Committee on Publications respectfully begs leave to report that the publications which are regu-

larly brought out by the Association are four in number, to wit: (1) CALIFORNIA AND WESTERN MEDICINE, the official organ of the Association; (2) the annual directory; (3) The *Pre-Convention Bulletin*; (4) The convention program for the annual meeting.

Further than this it may be stated that your Committee on Publications has not had any special problems of its own to solve during the year that is now passed and gone. However, in conversations with officers of the Association and with the editor, we have been apprised of the fact that the present most distressing financial status of the country generally, and our own beloved state in particular, has been the cause of a reduced income from advertising space in CALIFORNIA AND WESTERN MEDICINE. This is a most serious matter and one which indirectly touches upon the work of the Committee on Publications. It is our belief that if the members of the California Medical Association who are in touch with firms whose interest might be served by announcements in our official journal that they will render a great service by sending these names to the central office of the Association so that steps may be taken to contact such parties in an endeavor to secure their advertisements.

It was thought best this year by the Council of the California Medical Association that the annual directory be not produced in as complete a form as heretofore. This was a move in the line of financial retrenchment and seemed to be justified because the Board of Medical Examiners of the State of California brings out each year a directory which, to a very considerable extent at least, is in the same form and serves the same purpose as the one which we have been issuing.

To us it appears that the suggestion of the editor to print a condensed directory in one of the numbers of CALIFORNIA AND WESTERN MEDICINE is well worthy of most thoughtful consideration. It may be that this could be printed as an insert supplement, but even if this were not considered best it would still answer the needs of the society for the same to appear as an integral part of and bound into the official journal.

There can be no question but that the *Pre-Convention Bulletin*, which had its birth some two years ago, has more than justified its existence, and it is our belief that the members of the House of Delegates and of the Association would feel that it would be a backward step to dispense with it.

The plan for changing the size of the Annual Program from the large form which has been in vogue for many years to one which is smaller and more compact is one which, in our judgment, is in harmony with the trend of our day in the matter of printed programs.

In closing, we desire to express our sincere faith and belief that CALIFORNIA AND WESTERN MEDICINE, the official journal of the California, Nevada, and Utah Associations, is one of which we should all be justly proud and one which measures up in a very fine manner to the best standards and ideals of any similar publication in its field.

All of which is respectfully submitted,

Percy T. Magan, *Chairman*.

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Executive Group

Junius B. Harris, Chairman, 1932
The President, Lyell The President-elect,
Kinney, ex officio Junius Harris, ex officio
William Duffield, 1934 Joseph Catton, 1933

Advisory Group

T. Henshaw Kelly, San Francisco
Ruggles A. Cushman, Santa Ana

(All county society committees on Public Policy and Legislation.)

Your Committee on Legislation and Public Policy begs to submit the following report:

The major portion of our duties was concerned with the last State Legislature. Inasmuch as there was a record breaking number of bills introduced the problems of your committee were likewise multiplied.

Careful scrutiny and consideration were given the following bills; others not listed were read by title and studied.

The following Senate and Assembly bills were more or less directly concerned with medical practice and public health. This large list indicates how heavy is the task which faces the Committee on Public Policy and Legislation and the California Medical Association Council when a legislature is in session in California.

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Many of these measures required our alert and active support and many others demanded vigorous efforts in preventing their passage. All demanded increasing vigilance.

The practice of "highjacking" bills was indulged in by this Legislature in an unprecedented manner. An Assembly bill, for instance, relating to fees in Justices' Courts was "highjacked" into the famous Masseurology bill. It was almost impossible to follow these bills through the reference committees, as the "highjacked" bills were carried on file under the original number and title.

There were also three hundred and forty-three skeleton bills introduced in the Assembly alone. One such skeleton bill became a bill requiring the compulsory registration of patients suffering from syphilis.

Your committee extends its heartfelt appreciation for the support given it by the officers and members of our county societies. Many requests, some of them urgent, were demanded of various county society officers, and prompt and valuable coöperation was extended your committee.

Respectfully submitted,

Junius B. Harris, *Chairman*.

County Society Committees on Public Policy and Legislation

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Mark L. Emerson, Oakland
Guy Liliencrantz, Oakland

Butte—

D. H. Moulton, Chico
J. G. Hepplewhite, Chico
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COMMITTEE ON SCIENTIFIC WORK**Executive Group**

Emma W. Pope, Chairman
John Homer Woolsey
F. M. Pottenger
Lemuel P. Adams
R. Manning Clarke
Stanley H. Mentzer

To the President and House of Delegates:

In February, 1932, this committee met at Pasadena with the accorded representative officers of each Section and assisted in the choice, correlation and distribution of papers for the several sectional programs. The list of essayists was checked in order to assure equitable distribution to members of the Association. Also, for the Section meetings, the physical facilities were inspected personally and the hotel management advised in regard to special rearrangements and adaptation of necessary auxiliary apparatus.

This committee considers that, in addition, its duty is to attend the regular annual meeting and assist and advise the sectioned officers in carrying out the various sectional programs in the most efficient manner.

We would respectfully submit the following for your consideration: Regarding election of officers in the several Sections, whereas in some Sections during the past seven years a custom of progression of the secretary on to chairman has developed; and whereas a greater interest would be afforded all ages of our membership by a more appropriate age-period of office than that now followed.

It is hereby recommended that wherever possible the chairmanship be considered for a man of mature years deserving of honor in recognition of his professional attainment, and the secretaryship for a young man active and of high repute in his specialty. We also suggest that each Section have the following officers: chairman, secretary and assistant secretary; progression from the assistant secretaryship to the secretaryship, and choice of men for all officers to be alternated between the south and the north section, respectively, of our state.

Respectfully submitted,

Emma W. Pope, *Chairman*.
John Homer Woolsey,
Lemuel P. Adams,
F. M. Pottenger,
R. Manning Clarke,
Stanley H. Mentzer.

REPORTS OF COMMISSIONS, SPECIAL AND COUNCIL COMMITTEES

DEPARTMENT OF PUBLIC RELATIONS*

Walter M. Dickie, Director

Committee on Public Policy and Legislation
Committee on Medical Economics
Committee on Hospitals, Dispensaries and Clinics
Committee on Health and Public Instruction
Cancer Commission

State Committee on Public Relations

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Gertrude Moore, Oakland

Kern—

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Chester A. Moyle, Merced

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Sacramento Society for Medical Improvement

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Oscar F. Johnson, Sacramento
Gustave Wilson, Sacramento
Edward S. Babcock, Sacramento
Wallace Briggs, Sacramento
C. E. Schoff, Sacramento
Paul Christman, Sacramento
Ex officio—President of the Woman's Auxiliary to the Sacramento Society for Medical Improvement, Mrs. F. N. Scatena, Sacramento

San Bernardino—

C. G. Hilliard, Chairman, Redlands
C. F. Whitmer, Colton
W. F. Pritchard, San Bernardino
F. F. Abbott, Ontario
E. J. Eytinge, ex officio, Redlands

San Diego—

W. O. Weiskotten, San Diego
William W. Belford, San Diego
James D. Bobbitt, San Diego

San Francisco—

Morton R. Gibbons, Chairman, San Francisco

San Mateo—

Hartzell Ray, San Mateo
Alan Benner, San Mateo
J. Paul Sweeney, Millbrae

Solano—

John W. Green, Vallejo
Andrew Finan, Suisun
Arthur R. Thompson, Rio Vista

Ventura—

W. F. Mosher, Ventura

CANCER COMMISSION

Executive Group

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Lyell C. Kinney, Vice-Chairman
Alson R. Kilgore, Secretary

Harold Brunn
William Ophüls
Henry J. Ullmann
Orville Meland
A. Herman Zeiler
Clarence G. Toland

To the President and House of Delegates:

Since its organization at the 1931 session the Cancer Commission has held four meetings and, in addition, two meetings of its Executive Committee have been held.

* The report of the director of the Department of Public Relations is printed in the proceedings of the House of Delegates. Reference is here made thereto because an abridged report was printed in the "Pre-Convention Bulletin." The director's report will be found on page 413.

Your Commission felt unanimously that its first service to the profession of the state should be the collection and codification of the most advanced work and opinion on the diagnosis and treatment of malignant disease and the presentation of this matter in readily available form to all members of the Association.

To this end the Commission has requested the coöperation in committee work of some two hundred and ninety-seven members throughout California, and the response has been enthusiastic and all but universal. Much excellent work has already been done in survey of the various fields of cancer, and we anticipate that at least one committee report will be completed and ready for presentation at the annual session in May. Others will be finished shortly.

Your Commission feels that this work should be carried more nearly to completion before any extensive campaign of public education is undertaken.

In the meantime a concerted effort has been made to acquaint the membership of the Association with the aims and plans of the Commission. Through the coöperation of district councilors, members of the Commission have personally visited county medical societies and in several instances have arranged programs for these society meetings. Following is a list of the county societies visited:

Northern District Medical Society.....	October 13, 1931
Napa	November 4, 1931
Sonoma	November 12, 1931
San Joaquin (breast program).....	December 13, 1931
Riverside	December, 1931
Fresno (breast program).....	February 2, 1932
Monterey	February 5, 1932
Glendale branch, Los Angeles (breast).....	February 15, 1932
Santa Clara	February 17, 1932
Tulare (breast)	February 28, 1932
Kern	February, 1932

Cancer meetings have been planned in the immediate future at:

Stanislaus, Merced, Tuolumne (bone).....	March 11, 1932
Santa Monica branch, Los Angeles.....	March 15, 1932
Pasadena branch, Los Angeles (G-I).....	April 19, 1932
San Francisco, Alameda, San Bernardino, Los Angeles, San Diego, Ventura and Santa Barbara	

Since November 1931, through the courtesy of the editor, a column in CALIFORNIA AND WESTERN MEDICINE has been devoted to the work of the Commission and it is planned to publish in this column the results of studies and surveys by clinical committees as they are completed.

Your Commission believes that the program as it is being carried out has already stimulated a wider interest in early diagnosis and treatment; has pointed out important matters upon which opinion is divergent, and will stimulate clarity of thought and crystallization of opinion upon such important matters.

Entirely aside from these results, it is becoming increasingly apparent that the work being carried on by a large group of members is helping to develop a capacity for coöperation in the carrying out of a plan which cannot help but be of the greatest value in strengthening the organized profession of California.

The Council will remember that at its meeting of May 23, 1931, a budget for the Cancer Commission for 1931-1932 was authorized, not to exceed \$4500. Below is a statement of expenditures to date. Continuation of the work will cost somewhat more than this report would suggest, since the volume of work has rapidly increased and it has been necessary to employ a full-time secretary, beginning March 1; postage and printing expenses will also be greater.

Rent	\$ 318.75
Furniture	177.59
Salary	253.76
Miscellaneous desk supplies	164.90
Lantern slides	10.20
Transportation	193.40

\$1118.60

Respectfully submitted,

C. A. Dukes, *Chairman.*

AUDITING COMMITTEE*

Executive Group

T. Henshaw Kelly, Chairman

Joseph Catton

Karl L. Schaupp

COMMITTEE ON ARRANGEMENTS

Executive Group

Fitch C. E. Mattison, Chairman

Wm. R. Molony

Harry H. Wilson

Robert E. Ramsay

Leroy B. Sherry

To the President and House of Delegates:

In the organization of the committees on arrangements for the California Medical Association meeting in Pasadena, May 2 to 5, an advisory committee was appointed, consisting of the officers of the State Association and the County Medical Association, with a local executive committee on arrangements and various committees pertaining to the entertainment features, which are already published in *CALIFORNIA AND WESTERN MEDICINE*.

We think the arrangements for the entertainment for the members of the California Medical Association and entertainment of the members of the Woman's Auxiliary, with Mrs. Philip Schuyler Doane as chairman, has been well planned. They have done wonderful work in assisting the local Committee on Arrangements for entertaining their guests.

The official social events of both the Medical Association and the Woman's Auxiliary we think have been planned very well, and sincerely trust that the results will be satisfactory to everyone attending the meeting. We think the members will all enjoy the president's dinner and al fresco luncheon.

In addition to the official program furnished by the state society, we are getting out a small booklet, suitable to carry in a pocket or handbag, giving a synopsis of the time and place of the various events.

Mention should be made of the close coöperation of the Huntington Library, which has arranged a rare treat of medical works and many important manuscripts printed before 1641. A booklet giving details for this exhibit has been published which will be on sale at the Huntington Library at a small cost. As the number who can be accommodated at the Library, which will be open on Tuesday, Wednesday, and Thursday from 1:30 to 4:30 p. m., is limited, members should register the day and hour on which they would like to go.

The demonstration of the million-volt laboratory and x-ray apparatus at the California Institute of Technology, under the direction of Dr. C. C. Lauritsen and Dr. J. W. Du Mond on May 2, 3, and 4, will be of special interest to all.

Respectfully submitted,

F. C. E. Mattison, *Chairman*.

SPECIAL COMMITTEE ON CLINICAL AND RESEARCH PRIZES

Executive Group

George Dock, Chairman, 1933

Emmet Rixford, 1932

Eugene S. Kilgore, 1934

To the President and House of Delegates:

The committee takes pleasure in reporting a prosperous year.

To date we have received twelve prize essays, which are being studied by the members of the committee, and the final report will be forwarded as soon as possible.

The increased interest in the prize contest is the result of the active and discriminating publicity given in *CALIFORNIA AND WESTERN MEDICINE*.

Respectfully submitted,

George Dock, *Chairman*.

* The report of the Auditing Committee is printed in the proceedings of the House of Delegates. (See page 410.)

SPECIAL COMMITTEE ON THE "CALIFORNIA MEDICAL PRACTICE ACT" AND ON A PROPOSED "QUALIFYING CERTIFICATE (SO-CALLED BASIC SCIENCE) LAW"

George H. Kress, General Chairman

Bay Region Group

Morton R. Gibbins, Group Chairman

Oliver D. Hamlin

Emma W. Pope

Walter B. Coffey

Joseph Catton

Langley Porter

William Ophüls

Hartley Peart

Los Angeles Group

Percy T. Magan, Group Chairman

Lyell C. Kinney

William Duffield

William Cutter

William Molony

At-Large Group

Junius Harris, Group Chairman

Percy Phillips

Charles Pinkham

Frederick Gundrum

To the President and House of Delegates:

Your special committee on possible revision of Medical Practice and of submittal of a Qualifying Certificate (so-called Basic Science) Act has little to add to the reports which have been submitted in the past several years to the Executive Committee, the Council, and the House of Delegates.

In the stress and strain of our present times it must be evident to all that somewhere and somehow, something is lacking as regards the joint and adequate protection of the interests of the public health and of the learned profession of medicine.

Two paragraphs from a recent article by a lay writer, Peter B. Kyne (*Examiner*, April 4, 1932), reveal a psychologic background which may explain in part why the medical profession has gotten out of step with the prevailing lay thought in our present day somewhat materialistic era. These paragraphs are:

"The true physician has in him a Christ-like quality. He has a vast sympathy for sick people, a vast pity for the poor and the helpless. So he is imposed upon, for most human beings are alert to note quick and unstinted sympathy and are not at all averse to trading upon it. And the doctor, who knows human beings so much better than they know themselves, is, somehow, neither shocked, distressed, nor made bitter by evidence of ingratitude. . . ."

"Few persons realize how hard-earned is the doctor's competence, which, nine times out of ten, is surprisingly modest. He is the last relic of civilized slavery. . . ."

An interpretation of the above lay comments suggests that members of the medical profession have been so busy in the practice of their art and science that by and large they have failed to appreciate the importance of the massive psychologic and material changes in our present-day American civilization, this inaction permitting lay and cultist activities to become operative against the profession. All signs indicate that such lay activities, unless checked, will have demoralizing influences on the scientific and ethical standards of the profession and on the social and living standards of physicians. The importance of prompt and thorough study of the influences antagonistic to the medical profession therefore is apparent, if deterrent results to the profession are to be prevented.

Why is all the above related to medical licensure? For the reason that inadequate medical licensure laws permit legal recognition of persons who, as judged by modern-day standards, have insufficient training. Such insufficiently educated and trained persons, once they receive licenses to practice the healing art, through reducing the incomes of well trained physicians, by the amounts of money they collect through their cultist practice, necessarily become factors in reducing the professional and living standards of properly trained medical men and women. Such inadequately educated and trained practitioners also depreciate the esteem in which members of a well-trained profession are held by the lay public. Modern-day lay psychology is such that many lay citizens judge the medical profession not by its strongest but by its weakest members. And since in the minds of many lay persons there is little recognition of the differences existing in the standards which are upheld

by nonsectarian and cultist practitioners, cultist groups, for instance, find it not an overdifficult task to secure laws which seemingly place a premium, not on high, but on low standards of education and training. The letters of a cultist school printed in the April CALIFORNIA AND WESTERN MEDICINE (page 294) amply demonstrate that fact.

Apropos of what has been said above, Publication No. 16 of the "Committee on Costs of Medical Care" in discussing the existence in the United States of some thirty-six thousand practitioners of sectarian or cultist medicine, brings out the fact that the people of the United States pay these cultist practitioners about \$125,000,000 annually. The following statement is also significant: "As healing practitioners they are incompetent. Lacking the ability to recognize or diagnose disease, their existence is a menace to the public health. The greater part of the money spent for their services represents sheer waste."

State laws which lay down standards of admission necessary for legal permission to practice the healing art need close and constant scrutiny, because both the aspirants for legal licensure who do not possess proper educational and training qualifications, and the teaching and ownership interests in back of the production of such insufficiently trained practitioners, never cease in their respective efforts to secure legal recognition for themselves on the specious plea of lesser training being needed to care for limited expressions of healing art service. However, when once such legal sanction has been given by commonwealths to groups asking such special low requirement recognition, it has only been a matter of time when larger privileges of practice were requested or demanded and obtained. The State of California can point to more than one such extension of scope of practice, and has before it today the example already referred to, of one cultist group making just such an effort for legislation which would let its disciples become full-fledged physicians and surgeons on training standards which, three or more decades ago, by nonsectarian medicine were relegated to the past.

If these are the facts which face it, does it not behoove the organized medical profession to ask itself what can be done concerning legal licensure requirements, both as regards the today and the tomorrow?

When medical licensure acts are analyzed, it is apparent that they deal with two things: one, basic or preliminary education; and two, professional training. This report will now briefly consider each of these in turn.

I. AS REGARDS PRELIMINARY EDUCATION

The need of a Qualifying Certificate (Basic Science) Act should be self-evident to both the lay public and the medical profession. It should not be a difficult task to make lay persons understand that all members of a profession, whose members are turned to by lay citizens when aid is sought for the maintenance of personal health and the prevention of possible death, should have certain basic preliminary or qualifying education and that a decent minimum for such primary education would be an honest and full high school education.

Yet, strange and incomprehensible as it may seem, the people of California have seen fit to place on the statute books of the state, licensure laws which make a mockery of a four-year high school education, in that "equivalent education" which is accepted by one or more cultist boards is far below that which would be accepted as satisfactory high school admission requirements by any one of California's recognized institutions giving liberal arts, science, or engineering training.

Members of this special committee of the California Medical Association have given considerable time in the past in an effort to formulate the basis of a

qualifying certificate law that would be of such nature as to appeal to voters as nothing more than what should be a fair requirement to demand of all healing art practitioners. The basic subjects decided upon are all nonmedical (English, Chemistry, Physics, and Biology). The examining board to consist of five members nominated to the Governor, from their liberal arts and technical faculties by the presidents of the following institutions: University of California, Stanford University, Santa Clara University, University of Southern California, and California Institute of Technology. An examining board appointed from such sources is one which should appeal to all fair-minded citizens. In equal measure it could be assumed that it would function properly.

In case such a qualifying certificate law should be decided upon, there would come up the question of its enactment through action of the legislature in 1933 or by initiative vote of the citizens in November, 1932. The latter would be the safer and more desirable plan. Unfortunately, however, it would also be the more expensive. The costs might be reduced, however, if the coöperation of the professions of dentistry and pharmacy (which also maintain high school standards of preliminary education) could be secured, so that initiative petitions could be placed in the offices of doctors and dentists and in drug stores. In such an effort the California League for the Preservation of Professional Standards, which organization came into existence several years ago, would be glad to co-operate.

II. AS REGARDS CHANGES IN THE CALIFORNIA MEDICAL PRACTICE ACT

Medical licensure standards should be interpreted by a board of examiners whose members are in sympathy with the best standards of modern medical science. The medical profession should be able to best judge the qualifications of members for such a board. Certainly under the present system some aspirants for places on the state examining board bring pressure for appointment on the Governor of our State who, it may be taken for granted, would not be seriously considered by the House of Delegates of the California Medical Association. It therefore becomes a recurring task for Association officers, when vacancies exist, to be alert to possible changes in state examining board personnel, lest some one or more persons be appointed who would be *persona non grata* to the profession.

That is the reason why the old system in vogue in former medical practice acts of California, of having the Governor appoint the members of the Board of Medical Examiners from lists of twice the number of nominees, which nominees would be elected by the House of Delegates of the California Medical Association, is a method worthy of consideration.

If changes such as the above were contemplated it would also be desirable to consider codification of our present Medical Practice Act.

Here also the choice of legislative action or initiative comes up, and if the latter method were decided upon, the question of possible coöperation with the allied professions of dentistry and pharmacy, which professions are also considering these same matters, again is to be considered.

During this annual session at Pasadena, a conference will be held by the Council with representatives of these allied professions, and with the League above referred to, and it is hoped that at such conference the general policies for the immediate future in these matters of qualifying certificate and of professional licensure will be decided upon.

Respectfully submitted,

George H. Kress, *General Chairman.*

COUNCIL MINUTES

**Minutes of the Two Hundred and Fourth Meeting
of the Council of the California Medical Association
at San Francisco, January 16, 1932**

The following minutes were approved by the Council at its two hundred and sixth meeting, held at Pasadena on May 2, 1932.

Held in the offices of the Association, Room 2004, 450 Sutter Street, San Francisco, Saturday, January 16, 1932, at 10 a. m.

Present.—President J. B. Harris, President-elect J. M. King, Speaker of the House Edward M. Pallette, Chairman of the Council Oliver D. Hamlin, Chairman of the Executive Committee T. Henshaw Kelly; Councilors Mott H. Arnold, Robert A. Peers, William Duffield, Henry J. Ullmann, Fred R. DeLappe, Alfred L. Phillips, Karl L. Schaupp, Henry S. Rogers, George G. Hunter, Ruggles A. Cushman, William H. Kiger, Joseph Catton, George G. Reinle, and Editor George H. Kress, Secretary Emma W. Pope and General Counsel Hartley F. Peart.

Absent.—None.

1. Call to Order.—The meeting was called to order by the chairman, pro tem, T. Henshaw Kelly.

2. Recess of Council.—The attention of the Council was called to the fact that a meeting of the directors of the "Trustees of the California Medical Association" was called for 10 a. m.

Action by the Council.—On motion duly made, seconded and unanimously carried, the following resolution was adopted:

Resolved, That the Council of the California Medical Association declare a recess to permit the holding of a meeting of the "Trustees of the California Medical Association."

3. Reconvening of Council.—The chairman pro tem called the Council to order and declared that the first order of business would be consideration of the annual budget for 1933.

4. Annual Budget for 1933.—The secretary read the estimated income and expenses of the Association for the year 1933 as prepared by the Auditing Committee and approved by the Executive Committee. The chairman of the Auditing Committee then stated that no allocation had been made in the budget for the expense of the Department of Public Relations, it being considered advisable to allow the Council to make this apportionment after further discussion.

Action by the Council.—On motion of Pallette, seconded by Schaupp, the following resolution was adopted:

Resolved, That the estimated budget of income and expense for the year 1933 be approved by the Council as submitted.

Dr. O. D. Hamlin having come in, Vice-President Kelly relinquished the chair to him.

5. Depositories for Savings of the Association.—Discussion was had of the savings of the Association and the secretary reported on the sums deposited in savings accounts in various banks in California. Members of the Council felt that the investment of a portion of the funds in United States Government Bonds was advisable.

Action by the Council.—On motion of Hunter, seconded by Pallette, the following resolution was adopted:

Resolved, That of the funds of the California Medical Association, \$50,000 be transferred to the "Trustees of the California Medical Association"; and that the Council recommend to said "Trustees of the California Medical Association" that \$75,000 of its funds be invested in United States Government Bonds.

Letter from Dr. Mott Arnold with attached letter from the First National Bank of San Diego was presented, requesting that the California Medical Association deposit a portion of the savings of the Association in the First National Bank of San Diego.

Action by the Council.—On motion of Catton, duly seconded, the following resolution was adopted:

Resolved, That the Executive Committee be instructed to examine the deposits in the various banks and give its consideration to the matter of depositing a portion of such funds in the bank suggested by Doctor Arnold or in any other banks deemed desirable.

6. Metropolitan Life Insurance Company.—Doctor Kelly stated that a representative of the Metropolitan Life Insurance Company had asked to address the Council and if this met with the approval of the members a definite time should be set for his hearing. The Council fixed the hour of 11 a. m.

7. Minutes of the Council.—The chairman stated that the minutes of the 203rd meeting of the Council had been mailed to all councilors and if there were no objections, he would entertain a motion for their approval.

Action by the Council.—On motion of Duffield, seconded by Harris, and unanimously carried, the following resolution was adopted:

Resolved, That the minutes of the 203rd meeting of the Council as mailed to all members be approved.

8. Minutes of the Executive Committee.—The chairman stated that the minutes of the 130th and 131st meetings of the Executive Committee had been mailed to all members.

Action by the Council.—On motion of Harris, seconded by Reinle, and unanimously carried, the following resolution was adopted:

Resolved, That the minutes of the 130th and 131st meetings of the Executive Committee be approved.

9. President-elect as Ex-officio Member of Special Committees.—The secretary stated that the Committee on Public Relations had appointed the president-elect as an ex-officio member of the committee subject to confirmation by the Council and had recommended that through councilor action the president-elect be made an ex-officio member of all committees to which the president is appointed. It was felt that this provision should apply to all special committees, but that each appointment should be acted upon individually. It was pointed out that membership of standing committees was fixed by constitutional provision.

Action by the Council.—On motion of Hunter, seconded by Kelly, the following resolution was adopted:

Resolved, That the recommendation of the Public Relations Committee be adopted and the president-elect be declared an ex-officio member of said committee.

10. Invited Guests.—The secretary reported on invited guests for the Annual Session stating that Dr. Karl Menninger would speak before the general meeting on "The Psychogenic Factor in Physical Disease"; Dr. R. B. Greenough of Boston would speak on "What the Medical Profession Can Do to Diminish the Mortality from Cancer"; and Dr. Fred H. Albee, on "Bacteriophage in the Treatment of Osteomyelitis and Other Wounds"; that Dr. S. A. Levine of Boston had been invited but as yet no reply had been received. The secretary stated that invited guests would speak at the general meetings on Monday and Wednesday; that the Medical Economics Program would be held on Tuesday; and that Dr. Karl Menninger had asked that the date of his address be definitely fixed. The Council fixed Monday as the day for the address of Doctor Albee and Wednesday for the addresses of Doctors Greenough and Menninger.

11. Exhibits at Annual Session.—The secretary stated that Dr. William R. Molony, chairman of the Committee on Commercial Exhibits, had submitted a floor plan for exhibit space at Hotel Huntington and had expressed the belief that the same rates for space as were in effect at Hotel Fairmont should prevail at Hotel Huntington. Discussion was then had as to the size of space, expense of meeting, etc. The secretary stated that at the rates charged for the last annual meeting, if all space were sold, the Association would have an income of \$2800. It was felt that on account of the present conditions, size of space, and attitude of exhibitors, a reduction should be made.

Action by the Council.—On motion duly made, seconded and carried, the following resolution was adopted:

Resolved, That the cost of exhibit space be reduced 25 per cent from the estimated prices submitted by the secretary.

Doctor Duffield spoke of an exceptionally fine scientific exhibit which had been given at Los Angeles by Dr. Frederick Proescher of Agnew and suggested that Doctor Proescher be requested to exhibit at the annual session. The secretary was instructed to write to Doctor Proescher regarding the presentation of the exhibit at the next annual session.

12. Length of Annual Session Papers.—The secretary stated that the secretary of the Section of Pathology and Bacteriology had requested that that section be granted the privilege of waiving the fifteen minute ruling on the length of papers to permit the presentation of a valuable paper. It was the sense of the Council that it had no authority to make such ruling and that the matter should be left to the individual section.

13. Cancer Commission.—The secretary reported that Dr. Zera Bolin, chairman of the Pathology Section, stated he is preparing for special work for the Cancer Commission at the White Memorial Hospital at Los Angeles and that he would also like to attend the Program Meeting at Pasadena. Since the secretary of the Pathology Section lives in Los Angeles and is attending the Program Meeting without expense to the Association, Doctor Bolin asked if the Association would pay his expenses for attendance at the meeting in view of the special work for the Cancer Commission which he is to carry on.

Action by the Council.—On motion of Duffield, seconded by Harris, and unanimously carried, the following resolution was adopted:

Resolved, That the request of Doctor Bolin be referred to the Cancer Commission with power to act.

14. County Society and Officers Luncheon.—Discussion was had of the advisability of holding a luncheon meeting of officers of county societies and councilors at the annual session at which the activities and problems of the Association could be discussed. Doctors Kress, Kiger and Ullmann suggested that officers of the Association, councilors, members of standing committees and county society officers hold such luncheon and that the Public Relations Committee be requested to prepare topics for a round table discussion.

Action by the Council.—On motion of Catton, seconded by Pallette, and unanimously carried, the following resolution was adopted:

Resolved, That such luncheon be held on a day to be set by the chairman of the Program Committee and that the Executive Committee study the matter with power to act, along the lines of discussion, and suggest a more ideal type of luncheon.

15. Medical Legislation.—The general counsel stated that he would suggest that all legislative bills proposed by the Association be definitely referred to the attorney for approval as to title and constitutionality. Mr. Peart stated that a regular procedure providing that the measure was to be approved as to legality by the counsel would be advisable.

Action by the Council.—On motion of Duffield, seconded by Catton, and unanimously carried, the following resolution was adopted:

Resolved, That all bills or legislative measures sponsored or endorsed by the California Medical Association be submitted to the general counsel for approval as to form, title and constitutionality.

16. Ownership of X-rays.—Mr. Peart read the proposed form for ownership of x-rays, which the Executive Committee had asked him to present. It was the sense of the Council that the statement should be condensed. The question of the length of time for which films should be preserved was brought up and Doctor Ullmann made the suggestion that publicity be given to this point. It was decided that the statement

regarding the sending of films to physicians be omitted.

Action by the Council.—On motion of Kelly, seconded by Catton, the following resolution was adopted:

Resolved, That the matter of a statement for office notices covering ownership of x-ray plates be referred to the Executive Committee with power to adopt, distribute and give publicity to the suggestions.

Doctor Ullmann was asked to submit his suggestions before the next meeting of the Executive Committee.

17. Medical Licensure.—The general counsel presented a report[†] (copy of which is appended to these minutes), at the request of the Executive Committee on the desirability of considering an initiative act to establish a Doctor of Medicine (M.D.) Bureau of Licensure. Mr. Peart called the attention of the Council to the fact that such legislation would not destroy the present Board of Medical Examiners.

Doctor Kress as chairman of the special committee on the California Medical Practice Act and a possible Qualifying Certificate Act for California submitted a written report[‡] (a copy of which is appended to these minutes). In his discussion of that written report Doctor Kress stated that he could think of no objection to the incorporation of any of the recommendations submitted by General Counsel Peart, if such would be advantageous in producing a stronger Medical Practice Act for California.

He also called attention to the fact that the dental and pharmaceutical professions were also contemplating revisions of their respective practice acts, and that if such was the case it would probably be desirable to maintain contacts so that coördinated efforts could be made in these matters in case the California Medical Association decided to take any action for revision.

18. Recess of Council.—Doctor Shepard, medical director of the Metropolitan Life Insurance Company, having arrived, on motion of Kelly, seconded by Duffield, it was

Resolved, That a recess of ten minutes be declared and the courtesy of the floor be extended to Doctor Shepard.

19. Doctor of Medicine Act.—The chairman called the Council to order. Mr. Peart stated that he thought the Association should, if any initiative regulating practice were proposed, seriously consider an M.D. licensure measure.

Action by the Council.—On motion of Kress, seconded by Catton, and unanimously carried, the following resolution was adopted:

Resolved, That the reports be received and the matter be referred to the Executive Committee for study with power to act.

It was suggested that the councilors send to the State Office a written statement of their reactions to such proposed legislation.

20. Advisory Committee to the Department of Institutions.—Dr. Joseph Catton, chairman of the Advisory Committee to the Department of Institutions, submitted a report on the activities of his committee stating that the committee was attempting to establish standards for superintendencies in state hospitals and that a meeting would be held at luncheon to consider applicants for the superintendency of the Agnew State Hospital and the Pacific Colony. Doctor Catton stated that all applications would be considered from the standpoint of fitness of applicants for the positions and that a written report giving the conclusions of the Advisory Committee would be submitted to Doctor Toner at a dinner meeting to be held this evening.

Action by the Council.—On motion of Ullmann, seconded by Kelly, and unanimously carried, the following resolution was adopted:

Resolved, That the Council instruct this Advisory Committee, which had been appointed at the request of the California Director of the Department of Institutions, to go over the list of candidates at the

noon meeting and, if possible, to name and recommend a candidate or candidates for each position and to submit a written report before the evening meeting, and that those members of the Advisory Committee who feel it necessary to attend the evening meeting do so as individuals but not as the committee as a whole.

It was felt that discussion at the evening meeting should be limited by the members to the written report.

21. Health Propaganda.—Doctor Kress stated that Mrs. Edith Tate Thompson had information on health propaganda in California which would be of interest to the Council.

Action by the Council.—On motion of Kress, seconded by Hunter, the following resolution was adopted:

Resolved, That Mrs. Edith Tate Thompson be granted the privilege of the floor for five minutes during the afternoon session.

22. Constitution and By-Laws—Medical Society of the State of California.—The general counsel stated that the proposed amendments to the Constitution and By-Laws of the Medical Society of the State of California had been submitted to and approved by the Executive Committee and that on December 30 an annual meeting of members of the "Medical Society of the State of California" had been held, at which time the proposed amendments were discussed and adopted. Mr. Peart stated that under the amended Constitution and By-Laws the chairman and the secretary would act as attorneys-in-fact for the members and would select the attorney to defend the member in case of suit for alleged malpractice; that provision was made for a "Members' Fund" and a "Society Fund."

* 23. See footnote.

24. Election of Trustee of Indemnity Defense Fund. The secretary stated that a trustee for the Indemnity Defense Fund should be elected to fill the place of William Ellery Briggs, deceased.

Mott H. Arnold nominated Junius B. Harris as trustee for the Indemnity Defense Fund; such nomination was duly seconded. Doctor Kelly moved that the nominations be closed and the secretary be instructed to cast the ballot. The secretary cast the ballot and the chairman announced the election of Junius B. Harris as trustee of the Indemnity Defense Fund for the unexpired term of William Ellery Briggs; term expiring January 1, 1933.

25. Insurance Company.—The general counsel stated that he had just received from Doctor Wilson, secretary of the Los Angeles County Medical Association, a policy of an insurance company which was writing insurance in Los Angeles and that he would advise Doctor Wilson of his opinion regarding the health service advertised by this company. Discussion was then had of the health service being rendered in Los Angeles. Doctor Catton outlined a similar plan of health insurance which was being formulated in San Francisco and northern California.

26. Noon Adjournment.—The chairman stated that immediately following the noon adjournment a meeting of the "Trustees of the California Medical Association" would be held.

Action by the Council.—On motion duly made, seconded and carried, the following resolution was adopted:

Resolved, That the Council of the California Medical Association adjourn until 2 p. m.

27. Call to Order.—The afternoon meeting of the Council was called to order by the chairman, Oliver D. Hamlin.

28. Binding of Journal.—The editor stated that at the meeting of the Council of September 26, 1931, the question of the advisability of returning to the old system of stapling the JOURNAL had been discussed. Doctor Kress stated that at the time the change was made from stapling to sewing, numerous letters were

received from members commending the change. Doctor Kress stated that he had discussed the question with the printers and that they were agreed it was a backward step to return to stapling and they had expressed a willingness to reduce the cost of sewing.

Doctor Kress emphasized the fact that the present system of sewing the JOURNAL permitted the JOURNAL pages to lie absolutely flat when CALIFORNIA AND WESTERN MEDICINE was opened, and that this was a great convenience to most readers. Further that the total cost of such sewing for some six thousand (6,000) JOURNALS was \$99 per month, or less than 2 cents a copy, and that under the reduced charge which was made possible by lower costs of paper stock the cost of such sewing would be less than one cent per number.

Doctor Kress stated that he felt that members who rarely attended state society medical meetings, etc., should be given a journal which in its typographical make-up and binding would be as good and as convenient as was possible to produce.

Action by the Council.—On motion of Kress, seconded by Hunter, the following resolution was adopted:

Resolved, That the Association continue the sewing of the JOURNAL on the basis of a cost of \$50 per month for future issues.

A vote was then taken on the motion. Motion passed; Doctors Kelly, Schaupp, Ullmann and Catton voting in the negative.

29. Advisory Committee to the Department of Institutions.—Joseph Catton, chairman of the Advisory Committee to the Department of Institutions, submitted the report of his committee. It was felt that the words "appointed at your request" should be inserted in both letters after the words "Advisory Committee to the Department of Institutions."

Action by the Council.—On motion of Kress, duly seconded, the following resolution was adopted:

Resolved, That the report of the Advisory Committee to the Department of Institutions, which committee had been appointed at the request of the director of the Department of Institutions of the State of California, be approved as amended.

30. Publication of Annual Session Papers.—The editor called attention to the resolution regarding a possible limitation of annual session papers which it would be mandatory for the editors to print and which had been adopted at the 131st meeting of the Executive Committee which was held on December 12, 1931. That recommendation of the Executive Committee to the Council was as follows:

Resolved, That the Executive Committee recommend to the Council that the plan of limiting the number of papers which it is mandatory upon the editors to receive from each section be adopted; that the officers of each section stipulate which papers shall be published; and that in the event that the officers of the sections do not make such stipulation within sixty days after any annual session, the Publication Committee shall have the responsibility of selection.

As regards the allotment of papers which it would be mandatory to accept from a section, the following tentative grouping was suggested: Anesthesiology 3; Dermatology and Syphilology 4; Eye, Ear, Nose and Throat 5; General Medicine 10; General Surgery 10; Industrial Medicine and Surgery 4; Neuropsychiatry 3; Obstetrics and Gynecology 5; Pathology and Bacteriology 3; Pediatrics 3; Radiology 4; and Urology 5.

Discussion was then had of the policy of publication of only a selected number of papers. Doctors Ullmann and Peers expressed the opinion that if a member went to the trouble of preparing a paper for presentation before a section, he would expect it to be published in the JOURNAL and considerable dissatisfaction would result if, after preparation and presentation, he were informed that the paper would not be published.

The secretary stated that if selection of the papers for publication were delegated to section officers,

* Item 23 refers to a matter still under consideration. Publication will be made at a later date.

much unpleasantness would result and outstanding men in the various specialties would hesitate to accept positions as section officers. It was pointed out that the resolution provided for possible selection of papers by the Publication Committee, or it suggested that the section could decide.

Doctor Pope expressed the opinion that the limitation of the number of papers to be presented would be solved by the limitation of the number of meetings to be held by each section at any annual session. Doctor Kress stated he felt that sections should be permitted to have adequate papers. The possibility of publishing papers in abstract form and furnishing reprints of full manuscripts was pointed out.

It was the sense of the Council that the chairman of the Program Committee should discuss this matter fully at the meeting of the Program Committee at Pasadena.

Doctor Ullmann then suggested that the number of papers be limited in the future and only such papers be read as can be published and also if further censorship is necessary that each section appoint a committee of three in the section, the membership of which shall be known only to the chairman. It was suggested that if a section wished to delegate the responsibility to a committee instead of to the section officers that the committee be secret or non-secret as the section wished.

Doctor Kress called attention to the fact that the number of papers which were submitted at an annual session was far in excess of what could be printed yearly in the twelve numbers of CALIFORNIA AND WESTERN MEDICINE if that journal was to be no larger than at present. During this last year in 1931, in order to catch up with the papers that had been read at the Del Monte 1930 annual session, three extra folios were authorized, but in spite of that, a considerable number of unpublished manuscripts were still on hand.

The editor called attention to the fact that if it was mandatory to accept only about seventy papers, that the additional papers which were read at the section meetings could then be sent to other publications and that most of such papers would be accepted by specialty publications, especially when the topics considered were of a somewhat technical nature. During the last year it had fallen to the lot of the Committee on Publications to make such suggestion to a considerable number of essayists at the San Francisco annual session of 1931, because no assurance could be given for prompt publication in the year 1931 or in 1932.

Doctor Kress felt that the suggestion that was made to amend the Executive Committee resolutions so that the section could have either the officers or a committee, secret or otherwise, to pass on papers which were recommended for publication, was a good one, and that in the event that the section officers or section committee did not act, then the Committee on Publications and the editor would assume the responsibility.

Doctor Kress stated that in his opinion it would be impossible to cut down the number of papers in most of the sections to the number indicated in the tentative publication number suggested by the Executive Committee, and that it would be well to let the sections have their programs, even though publication of all the papers could not be promised in CALIFORNIA AND WESTERN MEDICINE; such members, however, having the right to submit their papers to other publications.

Action by the Council.—On motion of Kelly, seconded by Ullmann, the following resolution was adopted:

Resolved, That at the meeting of the Program Committee on January 30, the chairman of the Program Committee be instructed to do all in her power to limit the number of papers read at each section meeting, using the table included in the recommendation of the Executive Committee as a basis, and that either the officers of the section or a section commit-

tee, secret or non-secret, be appointed to select the papers that are to be published this year; with decision by the Publication Committee if such officers or committee did not act; and further that the Council recommend to the House of Delegates the limitation for the future of the number of papers to be read at any annual session.

31. **American College of Physicians.**—Doctor Kress presented correspondence regarding publicity for the program of the American College of Physicians' meeting, April 4 to 8, 1932, at San Francisco.

It was the sense of the Council that publicity be given the meeting of the College of Physicians in the JOURNAL.

32. **Advertising Agent.**—The editor stated that at the last meeting of the Council discussion was had regarding the securing of an advertising agent for CALIFORNIA AND WESTERN MEDICINE in Southern California. Doctor Kress then read the minutes of a meeting held at Los Angeles with Mr. Butterworth at which the Los Angeles councilors were present. Doctor Kress stated that Mr. Butterworth was willing to handle the Southern California advertising on the basis of the usual 25 per cent commission, if such commission were allowed on all advertising accounts originating in the southern territory. The advisability of allowing the northern and southern representatives the commission on advertising accounts which are handled through the State Office direct with the advertiser was discussed. Some members of the Council considered this inadvisable.

Action by the Council.—On motion of Duffield, seconded by Harris, the following resolution was adopted:

Resolved, That the matter of advertising agent for Southern California be referred to the Executive Committee for further study and that if deemed advisable, Mr. Flynn and Mr. Butterworth meet with the Executive Committee when the matter comes up for discussion; and further that a report be submitted at the next meeting of the Council.

33. **Department of Public Relations.**—Letter from Dr. J. Rollin French was presented and received. Discussion was had of the advisability of concerted effort on the part of the Council in organizing the Department of Public Relations. The problem of qualifications and salary of director was then discussed in detail. The names of Doctors Crosby and Dickie were selected as desirable candidates for the appointment.

Action by the Council.—On motion of Duffield, seconded by Phillips, and unanimously carried, the following resolution was adopted:

Resolved, That a special committee consisting of the president, the president-elect, the chairman of the Council, and the chairman of the Executive Committee, be instructed to consult with Doctor Crosby and ask him to act as director of the Department, either part time or full time until the next annual meeting; that he be asked to organize the Department and he be authorized, with the advice and consent of the Executive Committee, to put in whatever help he needs to work out this plan and that in case Doctor Crosby refuses to accept, a similar proposition be made to Doctor Dickie for full time from now until the annual session in May, 1932, his salary not to exceed \$6,000 per year and necessary expenses while traveling.

34. **Committee on Health and Public Instruction.**—The secretary presented the report of the chairman of the Committee on Health and Public Instruction, Dr. Fred B. Clarke, which report had previously been mailed to all councilors.

Doctor Kress spoke of an exhibit which he had recently seen at the Tulane University. It was the sense of the Council that Doctor Kress send the information to Doctor Pope so that she can secure full information on the exhibit for use in the preparation of the California exhibit.

35. Kern County Society.—Doctor Harris, chairman of the special committee appointed to confer with the Kern County Medical Society regarding the county hospital situation, reported that such meeting had been scheduled and postponed twice and had then been set for January 9, but owing to the illness of the General Counsel no meeting had been held on that date. Doctor Harris stated that the meeting was now scheduled to take place at the time of the next regular meeting of the Kern County Society, the third Thursday in February.

The secretary then presented a letter from Dr. N. N. Brown referring to the meeting of the special committee. It was the sense of the Council that the letter be referred to the chairman of the special committee, Doctor Harris.

36. Sheppard-Towner Legislation.—Junius B. Harris, chairman of the Legislative Committee, reported on the present status of the Sheppard-Towner legislation.

Action by the Council.—On motion of Duffield, seconded by Harris, the following resolution was adopted:

Resolved, That the California Medical Association oppose the Sheppard-Towner bill.

Doctors Kelly, Ullmann, Arnold and Schaupp voted in the negative.

37. Health Propaganda.—Mrs. Edith Tate Thompson, who for the last fifteen years had been director of the Bureau of Tuberculosis under the supervision of the California State Board of Health, spoke of some of her observations in the examination of students in the six different teachers' colleges of California. She stated that she had been impressed in her conference with many of such students, of the reaction which these students had toward scientific medicine and felt that it would be very much worth the while for the members of the medical profession to appreciate the desirability of proper contacts with these future teachers of the next generation of Californians; so that when they took up their teaching work they would have a proper comprehension of what scientific medicine had done for the world in the conservation of health and life.

Action by the Council.—On motion, duly made, seconded and unanimously carried, the following resolution was adopted:

Resolved, That the Council tender a vote of thanks to Mrs. Thompson.

38. Delegate and Alternate to the American Medical Association.—The secretary reported that the American Medical Association had notified the California Medical Association that it is entitled to one extra delegate and one corresponding alternate for the New Orleans session according to the last reapportionment; that the meeting was to be held four days after our annual meeting and therefore the Council would have to appoint the delegate who is to serve in order that the necessary seven days' prior notification may be given the Credentials Committee of the American Medical Association.

On nomination of Kiger, seconded by Duffield, and unanimously carried, William R. Molony, Sr., was elected delegate to the American Medical Association. Doctor Kelly moved that the nominations be closed and the secretary be instructed to cast the ballot. The secretary cast the ballot and the chairman announced the election of William R. Molony, Sr., as delegate to the American Medical Association for the 1932 annual session at New Orleans.

On nomination of Duffield, seconded by Kiger, and unanimously carried, John C. Ruddock was elected alternate to Doctor Molony. Doctor Kelly moved that the nominations be closed and the secretary cast the ballot. The secretary cast the ballot and the chairman announced the election of John C. Ruddock as alternate to Doctor Molony for the 1932 annual session of the American Medical Association.

39. Veterans' Hospitals.—Letter was read from the American Medical Association requesting that the State Association appoint a committee to confer with

members of the American Legion Posts in order to create a better understanding regarding the present defects of veterans' legislation regarding hospitalization. The secretary stated that on account of the receipt of this letter, the recommendation of the Executive Committee referring the matter to county societies had not been carried out.

Action by the Council.—On motion of Catton, seconded by Kelly, the following resolution was adopted:

Resolved, That a special committee consisting of Doctors Rogers, Phillips, Pallette and DeLappe be appointed to supervise these matters.

40. County Hospitals.—Doctor Cushman reported that in accordance with councilor action asking that individual members gather information on various county hospitals within their districts, he had two reports he wished to submit.

Action by the Council.—On motion of Kress, seconded by Kelly, the following resolution was adopted:

Resolved, That the reports be received and given over to the Standing Committee on Hospitals, Dispensaries and Clinics.

41. Santa Maria Hospital.—Doctor Ullmann reported on the present situation regarding the Santa Maria Hospital, stating that he had been in touch with Doctor Jones and had endeavored to secure detailed information but had been informed that the problem seemed to be working itself out.

42. Committee on Radio Broadcasting.—Doctor Kelly, chairman of the Special Committee on Radio Broadcasting, stated that since the Department of Public Relations was being organized, and there was at present a Committee on Health and Public Instruction, he felt that the work on radio broadcasting should be turned over to the section to which it belonged.

Action by the Council.—On motion of Kelly, seconded by Ullmann, the following resolution was adopted:

Resolved, That the Special Committee on Radio Broadcasting be discharged and the problem of radio broadcasting be left to those sections of the Society that would naturally handle it.

43. Membership in County Societies.—The secretary stated that a letter had been received from the San Bernardino County Society stating that the American Medical Association had dropped a member of the San Bernardino County Society from membership in the American Medical Association; that the San Bernardino County Society intended to retain him as a member in good standing and asked what status said member would have in the State Association.

It was stated that the American Medical Association had the authority to drop members if it saw cause so to do.

It was suggested that full information be secured from the American Medical Association.

44. Retired Membership.—Request of the Alameda County Medical Association for the granting of retired membership to Dr. George Rothganger was presented.

Action by the Council.—On motion of Kelly, seconded by Reinle, and unanimously carried, the following resolution was adopted:

Resolved, That George Rothganger, Emeryville, Alameda County, be granted retired membership in the California Medical Association.

Request of the Butte County Medical Association for the granting of retired membership to Dr. Edward E. Baumeister was presented.

Action by the Council.—On motion of Ullmann, seconded by Kelly, and unanimously carried, the following resolution was adopted:

Resolved, That Edward E. Baumeister, San Francisco, member of the Butte County Medical Association, be granted retired membership in the California Medical Association.

45. Recommendations by County Societies.—Discussion was had of the danger of recommendation of individuals for various political appointments unless

thorough consideration was given to each situation as it arose.

Action by the Council.—On motion of Ullmann, seconded by DeLappe, the following resolution was adopted:

Resolved, That the Council advise the local societies that the recommendation of individuals for political positions is sometimes dangerous and that thorough consideration should be given such recommendations.

46. Public School Education.—Letter from Doctor Pinkham regarding the value of instituting a series of talks by outstanding doctors to be presented to the pupils in the teachers' colleges was read.

Action by the Council.—On motion of Kelly, seconded by Ullmann, and unanimously carried, the following resolution was adopted:

Resolved, That the letter be referred to the Department of Public Relations, with the approval of the Council.

47. Anti-Vivisectionist Literature.—Doctor Kress reported on literature distributed by the Anti-Vivisectionists at the Pomona State Fair.

It was the sense of the Council that the correspondence be referred to the Department of Public Relations.

48. Supporters of Medical Science.—Correspondence was presented from "The Supporters of Medical Science," an organization for the public refutation of propaganda inimical to the medical profession.

Action by the Council.—On motion of Ullmann, seconded by Reinle, and unanimously carried, the following resolution was adopted:

Resolved, That the correspondence from the Supporters of Medical Science be tabled.

*49. See footnote.

50. Advertising Campaign of Crocker National Bank.—Correspondence regarding the educational advertising campaign to be carried on by the Crocker First Federal Trust Company was presented. The secretary stated that the company handling the campaign wished to run one of a series of advertisements devoted to the medical profession and had asked for a 200-word article on service rendered to the people of San Francisco by the profession. It was suggested that information be secured from Doctor Shepard for the article.

Action by the Council.—On motion duly made, seconded and unanimously carried, the following resolution was adopted:

Resolved, That the matter be referred to the Executive Committee.

51. Councilor Visits.—Discussion was had of topics for presentation to component county societies at annual visits. It was suggested that the coming annual session be stressed; the use of county hospitals; the organization of the Public Relations Department; the desirability of organization of sections in county medical societies on medical economics; and optional medicine defense, etc.

52. Adjournment.—There being no further business, the meeting adjourned.

O. D. HAMLIN, *Chairman*.
EMMA W. POPE, *Secretary*.

ADDENDA TO COUNCIL MINUTES

† Report of General Counsel on Licensing Acts

January 11, 1932.

On the subject of licensing acts, discussion has been had from time to time since the adoption of the Osteopathic and Chiropractic initiatives in 1922, of the course to be followed by the California Medical Association. In 1923 I advocated and assisted in the preparation of Senate Bill No. 330,[§] introduced at the

* Item 49 refers to a matter still under consideration. Publication will be made at a later date.

† For reference, see item 17, page 442.

§ Editor's Note.—The proposed Medical Practice Act referred to by the Legal Counsel in his letter of January 11, 1932, will be printed in the Miscellaneous department of a future issue of California and Western Medicine. Lack of space prevents its publication in this number.

instance of the League for the Conservation of Public Health. This bill establishes a Doctor of Medicine (M. D.) Bureau of Licensure. I attach a copy of the bill herewith, which I obtained from the file of the League for the Conservation of Public Health, and which I am obligated to return to that organization.

I suggested and advocated in 1923, following the adjournment of the legislature, an initiative along the lines of this bill. It is my firm belief that had such an initiative been presented to the people in the years immediately following the adoption of the Osteopathic and Chiropractic initiatives it would have stood a very favorable chance of passage. Whether or not it could be passed at this time would be problematical. To do so would not be easy and would involve, of course, considerable outlay.

The attached bill is presented as a suggestion merely, as certain changes are desirable therein, particularly the inclusion of the State Homeopathic Society.

In discussions had before the Council since that date, I have directed attention to the desirability of considering a licensing act of this character. The adoption of such an initiative would not destroy the State Board of Medical Examiners, which would continue to function for the miscellaneous group not coming within the definition of Doctor of Medicine under the proposed measure.

Very truly yours,

(Signed) HARTLEY F. PEART.

P. S.—This matter is presented pursuant to the direction of the Executive Committee.

✓ ✓ ✓

‡ Report of the Committee on Medical Practice and Qualifying Certificate Acts

January 16, 1932.

Supplementary to the report which was made to the Council on September 26, 1931, and later report of date of December 12, 1931, made to the Executive Committee of the California Medical Association, the chairman of the Special Committee on Medical Practice Act and on a possible Qualifying Certificate Act begs leave to emphasize some of the points brought out in previous communications. Among such items are the following:

1. The Council of the California Medical Association should decide whether or not a revision of the State Medical Practice Act is desirable. If so, whether or not such revision should be through action of the legislature or initiative vote of the citizens. Further, what modifications of the Medical Practice Act which is now in force would be incorporated in either such legislative revision or initiative revision.

The chairman of your Special Committee on Medical Practice Act reiterates the recommendations made in previous reports that conditions of medical licensure in California are such that it would seem highly desirable to have a revision of the present Medical Practice Act, but that such revision of the said act should only be done through initiative vote of the citizens.

One of the essential modifications therein should be a provision whereby nominations of double the number of appointments provided for would be made by the California Medical Association, the governor to select the members of the State Board of Medical Examiners from such list of nominations as presented by the California Medical Association.

We believe it undesirable to attempt any special revision of our present Medical Practice Act through legislative action. We submit that it must be construed as a reflection upon organized medicine and upon the California Medical Association to have a Medical Practice Act which is so tied up with the Osteopathic Practice Act that organized non-sectarian medicine is unable to bring about amendments to its own act without the sanction of the osteopathic

‡ Editor's Note.—This report is referred to in item 17 of the Council minutes of January 16, 1932, on page 442.

group, as witness the failure during the last legislature to secure passage of the amendment making it obligatory for all recent graduates applying for licensure in California to have at least one year of internship.

2. As regards a Qualifying Certificate, or so-called Basic Science Act, the chairman of your special committee again emphasizes the desirability of such an act, provided the same is submitted through initiative vote of the citizens. He advises against any attempt at a qualifying certificate or so-called basic science act through legislative action.

The plan submitted contemplated a qualifying certificate board of five members from nominations submitted to the governor by the presidents of the following California institutions: The University of California; Stanford University; Santa Clara University; University of Southern California; and the California Institute of Technology.

The basic subjects to be English, Chemistry, Physics and Biology of standard equivalent to such knowledge through a four-year high school course. Such certificate to be submitted to every healing art practitioner's examining board before the applicant could take the examination of such healing art board.

In less than ten years more than three thousand practitioners of the healing art belonging to one of the cultist groups have been licensed in California, and these practitioners have been responsible for lowering standards of healing art practice and other deleterious effects. Many of these cultist practitioners have little more than a reading, writing and arithmetic preliminary education. Such a condition of affairs cannot be construed as other than a severe reflection upon healing art standards in California. A basic science act would go far in stopping this evil, at least as regards the infliction of new cultist groups upon the people of California.

3. It is suggested that if two such initiatives are considered, that a close alliance be made with the dental and pharmaceutical professions and with such allied organizations as the League for the Protection of Professional Standards and the League for the Conservation of Public Health so that all efforts might be united for the same end.

We understand that the dental profession of California is contemplating such an initiative. If the three professions work together and work hand in hand, it may be possible to reduce the cost of securing the requisite amount of signatures to a nominal sum.

In conclusion the chairman of your special committee desires to emphasize that whatever is done should be gotten under way at once, and if this Council decides that action is desirable, it might be well to pass resolutions to give the Executive Committee power to act in these matters, and it is so recommended.

Respectfully submitted,

(Signed) GEORGE H. KRESS,

*Chairman of the Special Committee on Medical Practice
Act of the California Medical Association.*

EXECUTIVE COMMITTEE*

**Digest of the Minutes of the 132nd Meeting
Held at San Francisco, February 27, 1932.**

1. Call to order.
2. Financial statements for December 1931 and January 1932 presented and approved.
3. Present depositories of funds approved.
4. Revolving Fund raised to \$1,000 to handle increased expenses of Cancer Commission and Department of Public Relations. Chairman of Council authorized to sign checks from Revolving Fund in absence of secretary.
5. Recommendation to Council that transportation expenses and lower berth of members of Committee on Public Relations and Executive Committee of Cancer Commission be authorized for three meetings yearly, exclusive of any held at annual session.

* For the information of members, digests or summaries of the minutes of the Executive Committee meetings are compiled for publication in California and Western Medicine.

6. Chairman of the Council authorized to sign checks on Salary Fund in the absence of the secretary.

7. Program for annual luncheon of officers of California Medical Association, the component county societies and members of standing committees outlined.

8. Hospital publicity in Monterey County considered, with special reference to unauthorized use of secretary's name. Resolutions condemning such action adopted.

9. Council meeting set for Sunday, May 1, at 8 p. m. at Hotel Huntington, Cottage No. 5.

10. Committee of Doctors Kelly, Hamlin, Harris and General Counsel Peart authorized to prepare final revision of forms of notices regarding ownership of x-ray plates.

11. Report by the editor on book review column in CALIFORNIA AND WESTERN MEDICINE and on State Medical Library plans.

12. Advertisement containing implied endorsement discussed. Secretary instructed to request elimination of such from all future copy.

13. Approval by Executive Committee of resolution that California delegates to American Medical Association introduce resolution in American Medical Association House of Delegates recommending study of Cuban "Health and Insurance Societies" by national association.

14. Manuscript laudatory of particular dispensary deemed not acceptable for publication in CALIFORNIA AND WESTERN MEDICINE.

15. Confirmation of previous action of Executive Committee regarding Amerop travel service.

16. Report by secretary on January advertising in CALIFORNIA AND WESTERN MEDICINE and on exhibit space sold for 1932 meeting.

17. Mr. Butterworth authorized to secure special advertising at usual commission for convention number of CALIFORNIA AND WESTERN MEDICINE.

18. Recess of Executive Committee to permit meeting of Board of Trustees of the "Medical Society of the State of California."

19. Call to order by chairman.

20. Resolutions passed by Executive Committee pending final action by Council adopting following organization for Department of Public Relations:

(a) The Department shall consist of a director and the following standing committees of the Association: Cancer Commission; Committee on Public Policy and Legislation; Committee on Medical Economics; Committee on Hospitals, Dispensaries and Clinics; and Committee on Health and Public Instruction.

(b) The function of the Department shall be to promote the leadership of the profession in public health activities, public health education, legislation dealing with public health and medicine and the betterment of medical care extended to all.

(c) The director shall be a Doctor of Medicine and shall serve the Council of the California Medical Association as managing director of the Department of Public Relations and shall be responsible to the Council; and with the aid of the Committee on Public Relations and the component committees of the Department, he shall carry out such activities in the Department as may be determined upon and assigned to it by the Council of the California Medical Association.

(d) He shall submit each year to the Auditing Committee as provided in the Constitution and By-Laws, a budget setting forth the estimated expenditures of his Department for the next succeeding fiscal year.

(e) The Committee on Public Relations shall assist the director in the correlation of the work of the component committees of the Department and shall submit plans and suggestions for the furtherance of the work of the Department to the Council and the House of Delegates.

(f) The component committees of the Department shall pursue such activities as are provided for them

by the Constitution and By-Laws of the California Medical Association and the director of the Department may extend the facilities of the office of the Department in furtherance of the work of said committees, as far as is feasible.

(g) Such committees may bring to the attention of the Council of the California Medical Association, through the Committee on Public Relations, such matters and suggestions as they may deem advisable.

21. Recommendation of Committee on Public Relations to the Council that a separate Bulletin be published by the Department of Public Relations referred to the Council by the Executive Committee.

22. Department of Public Relations instructed to use best efforts to establish county society committees on Public Relations through correspondence where possible.

23. Director of Public Relations instructed to secure further information concerning coöperation between National Committee on Costs of Medical Care and Doctor Porter's committee.

24. Recommendation of Committee on Public Relations that files of standing committees be turned over to the Department of Public Relations approved.

25. Sense of Executive Committee that no outline of duties of Department of Public Relations be published until after such duties had been fixed by Council of California Medical Association.

26. Problem in Kern County reported on by Doctor Hamlin. Doctor Dickie authorized to make such contacts through personal visit or correspondence as necessary and special committee authorized to attend annual convention of boards of supervisors of California and League of California Municipalities, if deemed desirable by chairman of Executive Committee.

27. Recess declared to permit meeting of "Trustees of the California Medical Association."

28. Call to order by chairman.

29. Noon adjournment.

30. Call to order by chairman.

31. Secretary submitted report of annual meeting of Program Committee and resolution regarding publication of annual session papers. Resolution of Program Committee that papers are accepted for presentation at annual session but publication cannot be guaranteed, adopted. Members of Program Committee invited to meet with Council on May 3.

32. Correspondence regarding fees for contract practice in Santa Clara County referred to chairman of Executive Committee and general counsel for reply.

33. Copy for use in advertising campaign of Crocker First Federal Trust Company amended and approved.

34. Anti-vivisectionists' propaganda at State Fairs discussed. Letter from Doctor Dickie presented.

35. Letter from Doctor Dickie suggesting that California Medical Association sponsor educational lectures in state teachers' colleges and coöperate with deans of medical schools for speakers read. Recommendation approved and referred to Doctor Dickie for action.

36. Report by Doctor Dickie on joint meeting of Cancer Commission and California Conference of Social Workers May 3. Suggested that choice of speakers be referred to Doctor Dickie and Doctor Palette.

37. Pending decision by the Council on publicity by the Department of Public Relations, it was the sense of the Executive Committee that a page or two in CALIFORNIA AND WESTERN MEDICINE be given to publicity by the Department and that material be submitted to the editor.

38. Release from publication in CALIFORNIA AND WESTERN MEDICINE of paper to be presented at annual meeting, requested. Release granted.

39. Letter regarding eligibility for membership of physicians who support sectarian medicine read. Reply authorized.

40. Adjournment.

EMMA W. POPE, *Secretary*.

Digest of the Minutes of the One Hundred and Thirty-third Meeting of the Executive Committee, Held at San Francisco on April 9, 1932

1. Roll call. Two members absent.

2. Financial statement for the month of February presented and approved.

3. Ruling passed that bonds purchased with money in Permanent Quarters Fund constitute a part of the Permanent Quarters Fund and that the integrity of such fund be maintained.

4. Discussion of transportation for scientific exhibit which Council had requested be shown at Pasadena.

5. Request for advance of money authorized by Council for payment of Auxiliary entertainment considered. Regular procedure in payment by voucher check with expense statement attached adhered to.

6. Recommendation that Council attend meeting called by League for Preservation of Professional Rights, Pasadena, Tuesday, May 4, at 4 p. m.

7. Committee appointed to further investigate question of hospital advertisement. General counsel appointed to submit resolution on power of secretary to speak in the name of the Association.

8. Pre-Convention Bulletin ordered sent to president, chairman of Council and chairman of Executive Committee for consideration and possible deletions before publication.

9. Presentation of letter from Los Angeles Council of Social Agencies regarding authorship of pamphlet published by California Medical Association. Further information requested of Doctor Ruddock. Los Angeles Council of Social Agencies informed of action.

10. Correspondence regarding excessive fees presented. Copies of correspondence ordered sent member criticized with request that he furnish facts of case from his standpoint.

11. Progress report on value of libel insurance made by general counsel.

12. Informal meeting of trustees of the "Medical Society of the State of California" set for immediately after executive meeting.

13. Letter ordered sent to Utah Association regretting discontinuance of present contract with CALIFORNIA AND WESTERN MEDICINE and expressing hope of future affiliation.

14. Request by southern councilors that conference of advertising agents with Council be had at Pasadena. Transportation expense of advertising agent to Pasadena authorized.

15. Decision against acceptance of certain advertisement submitted for JOURNAL.

16. Question of inclusion of certain items in allocation of expense to JOURNAL raised by editor. Secretary instructed to have accountant work out revised form for submission to Council at May 1 meeting.

17. Recent ruling by attorney general that death certificate may be signed by chiropractors presented and filed.

18. Informative report on clinics situated in Los Angeles made by Doctor Kress.

19. Letter presented and referred to Dr. M. R. Gibbons for information regarding breaking down of fee schedules for industrial accident work.

20. Separate department with box heading set aside for use by Department of Public Relations in JOURNAL. Letter from Department of Public Relations authorized sent to all members of Association.

21. Reports by Dr. W. M. Dickie on present status of California Committee on Costs of Medical Care; on situation in Kern County and on formation of local committees on Public Relations in various component counties.

22. Item added to program of second meeting of House of Delegates, "Approval by House of Delegates of Members of Standing Committees Appointed by the Council."

23. Adjournment.

EMMA W. POPE, *Secretary*.

COUNCIL MINUTES

**Minutes of the Two Hundred and Fifth Meeting of
the Council of the California Medical Association
at Pasadena, May 1, 1932**

The following minutes were approved by the Council at its two hundred and sixth meeting, held at Pasadena on May 2, 1932.

Held in Room 18, Hotel Huntington, Pasadena, California, Sunday, May 1, 1932, at 8 p. m.

Present.—President Junius B. Harris; President-elect J. M. King; Speaker of the House E. M. Pallette; Chairman of the Council O. D. Hamlin; Chairman of the Executive Committee T. Henshaw Kelly; Councilors Mott H. Arnold, William Duffield, Fred R. DeLappe, Alfred L. Phillips, Karl L. Schaupp, Robert A. Peers, Henry S. Rogers, George G. Hunter, Ruggles A. Cushman, William H. Kiger and George G. Reinle; Editor George H. Kress; Secretary-Treasurer Emma W. Pope and General Counsel Hartley F. Peart. Dr. W. M. Dickie, director of the Department of Public Relations, was also present.

Absent.—Joseph Catton and Henry J. Ullmann.

1. Call to Order.—The meeting was called to order by the chairman, O. D. Hamlin.

2. Report of the Council.—The report of the Council as prepared by the chairman, O. D. Hamlin, was presented to the Council for suggestions and correction. The report was read in full and after consideration certain changes in wording were suggested. It was stated that the amended report would be considered at the Monday meeting of the Council.

It was felt that a recommendation on the annual dues for 1933 should be made to the House of Delegates and such recommendation should be included in the report to the Council.

Action by the Council.—On motion of Duffield, seconded by Kelly and unanimously carried, the following resolution was adopted:

Resolved, That in view of the activities of the new Department of Public Relations, the Cancer Commission and other committees which may require additional funds, the Council recommend to the House of Delegates that the annual dues for 1933 be fixed at \$10.

Action by the Council.—On motion of Kelly, seconded by Phillips and unanimously carried, the following resolution was adopted:

Resolved, That the report of the Council as amended be adopted.

(Editor's Note: For report of the Council, see page 408.)

3. Tuolumne County Society.—Full discussion was had of the various data on file with the secretary regarding the inactivity of the Tuolumne County Society.

Action by the Council.—On motion of Kress, seconded by Hunter and unanimously carried, the following resolution was adopted:

Resolved, That the Council instruct the district councilor, Fred R. DeLappe, to make a survey of the situation and bring in a written report with recommendations at the autumn meeting of the Council.

4. Section on Physical Therapy.—The secretary read a petition for the formation of a Section on Physical Therapy submitted by a member of the San Francisco County Medical Society and signed by twenty members of the Association.

Action by the Council.—On motion of Kelly, seconded by Schaupp and unanimously carried, the following resolution was adopted:

Resolved, That in view of the number of Sections of the California Medical Association already existing, the Council recommend to the House of Delegates that the formation of a Section of Physical Therapy be not approved.

5. Report of the Secretary-Treasurer.—The report of the secretary-treasurer as published in the Pre-Convention Bulletin was presented for consideration by the Council. Doctor Kress pointed out that the statement in the next to the last paragraph of the

report was ambiguous since the amount indicated, \$15,252.10, included, in addition to salaries of editors and one-third of the clerical force, items of office expense and miscellaneous expense, and that the correct amount for salaries of editors and one-third of the clerical force was \$10,694.

Action by the Council.—On motion of Kress, seconded by Kelly and unanimously carried, the following resolution was adopted:

Resolved, That in presentation of the report to the House of Delegates, a proper explanation of this discrepancy be made.

6. Annual Session Expense.—It was stated that Dr. W. R. Molony of Los Angeles wished to appear before the Council on behalf of the Entertainment Committee.

Action by the Council.—On motion of Duffield, duly seconded and unanimously carried, the following resolution was adopted:

Resolved, That Dr. William R. Molony be granted the privilege of the floor.

Doctor Molony then stated that the Los Angeles County Medical Association had appropriated \$1,000 for the proper entertainment of guests at the Pasadena session and that on behalf of the Los Angeles County Medical Association and the Committee on Arrangements he wished to request that the California Medical Association allocate \$500 from the income of commercial exhibits for the use of the Entertainment Committee.

Action by the Council.—On motion of Kelly, seconded by Duffield, and unanimously carried, the following resolution was adopted:

Resolved, That the request of the Entertainment Committee be granted and that \$500 be allocated by the California Medical Association for the proper entertainment.

7. Report of the Auditing Committee.—T. Henshaw Kelly, chairman of the Auditing Committee, read the report of the committee as published in the Pre-Convention Bulletin.

Discussion was then had of the resolution of the Executive Committee providing for allocation of General Expenses against the JOURNAL.

It was then pointed out that under past action of the Council, one-third of all general expense had been allocated to the JOURNAL for many years, and that in this general expense were included such items as one-third of the salaries of clerical force, rent, office supplies, office expense, telephone and telegrams, annual meeting expense, Council expense and Executive Committee expense. Doctor Kress stated that he felt that some of the items here included were not properly chargeable to the JOURNAL, i. e., expenses of guest speakers, annual meetings, transportation of councilors and expense of Council and Executive Committee meetings.

Doctor Kelly stated that the Auditing Committee had thoroughly reviewed the allocation of expenses and had investigated the actual work of the central office in connection with the JOURNAL; that he was agreed that such items as expenses of guest speakers and annual meetings should not be charged one-third to the JOURNAL; but that under the present Council action the Auditing Committee was not authorized to make any other allocation.

Action by the Council.—On motion of Kress, seconded by Harris and unanimously carried, the following resolution was adopted:

Resolved, That the report of the Auditing Committee be adopted.

8. Annual Budget for 1933.—The annual budget for 1933 as prepared by the Auditing Committee and approved by the Executive Committee and Council was submitted for discussion and inclusion of an item covering estimated expense of the Department of Public Relations, which Department had been organized since the budget was prepared. It was stated that \$10,000 per year had been decided upon as a rough estimate of the expenses of the Department, and the Council authorized the inclusion of said item in the tentative budget for 1933.

9. **Report of Editor.**—The chairman stated that the next order of business was the consideration of the report of the editor. Doctor Kress then presented the report as published in the Pre-Convention Bulletin.

Action by the Council.—On motion duly made and seconded and unanimously carried, the following resolution was adopted:

Resolved, That the report of the editor be accepted.

10. **Report of the Trustees of the California Medical Association.**—Dr. O. D. Hamlin, president of the "Trustees of the California Medical Association," presented the report of the trustees. It was felt that the sentence covering transfer of funds should be changed to read: During the year 1931 twenty-five thousand dollars was transferred to the trustees and since that time an additional \$50,000 has been transferred, of which \$21,163.41 has been invested in Government Bonds.

Action by the Council.—On motion duly made and seconded and unanimously carried, the following resolution was adopted:

Resolved, That the report of the "Trustees of the California Medical Association" as amended be approved.

11. **Report of the Department of Public Relations.**—Dr. Walter M. Dickie, director of the Department of Public Relations, presented the report of the Department as prepared by him.

Action by the Council.—After discussion, on motion of Duffield, seconded by Reinle and unanimously carried, the following resolution was adopted:

Resolved, That the report of the Department of Public Relations be accepted and that this report be read in full at the first meeting of the House of Delegates.

12. **Report of Legal Department.**—The general counsel, Mr. Peart, gave a detailed report on the activities of the Legal Department during the past year. Mr. Peart also reported on the status of claims and cases handled through the old Indemnity Defense Fund and through "The Medical Society of the State of California." Discussion was then had of the amended Constitution and By-Laws and Medical Defense Rules of "The Medical Society of the State of California." The proposed group policy for members of "The Medical Society of the State of California" was then presented and discussed by the general counsel, and the contract read in full for the information of the Council.

The general counsel was commended on the excellence of the report.

Action by the Council.—On motion of Kelly, seconded by Harris and unanimously carried, the following resolution was adopted:

Resolved, That the report of the Legal Department be accepted.

13. **Delegate to the American Medical Association.**—Letter from Dr. Charles A. Dukes, alternate to Irving Ingber, was presented, which letter stated that neither Doctor Dukes nor Doctor Ingber could attend the 1932 House of Delegates session of the American Medical Association.

William Duffield then nominated William H. Sargent, of Oakland, Alameda County, as delegate to the American Medical Association for the 1932 annual session to be held at New Orleans; such nomination was seconded by George Reinle. The secretary cast the ballot and the chairman announced the election of William Sargent of Oakland as delegate to the American Medical Association for the 1932 session to be held at New Orleans, May 9 to 13, 1932.

(Note.—For final action, see item 5 of the minutes of the 206th meeting of Council, page 451.)

14. **Committees of House of Delegates.**—Edward M. Pallette, speaker of the House of Delegates, announced that he had appointed as members of the Credentials Committee, George G. Reinle, Oakland, chairman; Harry E. Zaizer, Orange and Ferdinand Stabel, Shasta; and as Reference Committee on Reports of Officers and Standing Committees, P. T. Phillips of Santa Cruz, chairman; Alson R. Kilgore

of San Francisco and Carl R. Howson of Los Angeles.

(Note.—For final action, see item 7 of the minutes of the 206th meeting of Council, page 451.)

Doctor Pallette stated that the Committee on Resolutions and New and Miscellaneous Business would be appointed after the House was seated.

15. **Program of House of Delegates Meetings.**—The programs of the first two meetings of the House of Delegates were presented and approved by the Council as published in the Official Program of the sixty-first annual session.

16. **Department of Institutions.**—Doctor Harris stated that Doctor Toner had asked to be granted the privilege of the floor of the House of Delegates for a four-minute talk on the Department of Institutions.

Action by the Council.—On motion of Kelly, seconded by Harris and unanimously carried, the following resolution was adopted:

Resolved, That the Council recommend that Doctor Toner be granted the privilege of the floor of the House of Delegates for not to exceed ten minutes.

17. **Legislation.**—Telegram from the American Medical Association regarding S. B. 3090, American Medical Association Medicinal Liquor Bill, and H. R. 10524, revivification of the Sheppard-Towner legislation, was read by the chairman of the Committee on Public Policy and Legislation, Junius B. Harris.

Action by the Council.—On motion of Harris, seconded by Duffield and unanimously carried, the following resolution was adopted:

Resolved, That the matter be referred to the Committee on Public Policy and Legislation with power to act.

18. **Associate Editor.**—The chairman read the resignation of Emma W. Pope of San Francisco as associate editor of CALIFORNIA AND WESTERN MEDICINE.

Action by the Council.—On motion of Kelly, seconded by DeLappe, the following resolution was adopted:

Resolved, That the resignation of the associate editor be laid on the table.

It was the sense of the Council that this would be considered at its reorganization meeting.

19. **Adjournment.**—There being no further business, the meeting adjourned to meet at 2:30 p. m., Monday, May 2, 1932.

O. D. HAMLIN, *Chairman.*
EMMA W. POPE, *Secretary.*

* * *

Minutes of the Two Hundred and Sixth Meeting of the Council of the California Medical Association at Pasadena, May 2, 1932

The following minutes were approved by the Council at its two hundred and seventh meeting, held at Pasadena on May 3, 1932.

Held in Room 18, Hotel Huntington, Pasadena, California, Monday, May 2, 1932, at 2:30 p. m.

Present.—President J. B. Harris; President-elect J. M. King; Speaker of the House E. M. Pallette; Chairman of the Council O. D. Hamlin; Chairman of the Executive Committee T. Henshaw Kelly; Councilors Mott H. Arnold, William Duffield, Fred R. DeLappe, Alfred L. Phillips, Karl L. Schaupp, Robert A. Peers, Henry Ullmann, George G. Hunter, Ruggles A. Cushman, William H. Kiger and George G. Reinle; Editor George H. Kress, Secretary Emma W. Pope, and General Counsel Hartley F. Peart.

Absent.—Doctors Joseph Catton and Henry S. Rogers.

1. **Call to Order.**—The meeting was called to order by the chairman, O. D. Hamlin.

2. **Transactions of Annual Meeting.**—The secretary read a letter from the editor asking that an extra folio be authorized for the June number of the JOURNAL so that all minutes of the annual session at Pasadena might be placed before the members immediately following the session.

Action by the Council.—On motion of Schaupp, seconded by Harris and unanimously carried, the following resolution was adopted:

Resolved, That one extra folio of sixteen pages be authorized for the June number of CALIFORNIA AND WESTERN MEDICINE to permit publication of all annual session minutes.

3. Committee on Clinical and Research Prizes.—George Dock, chairman of the Committee on Clinical and Research Prizes, reported that the committee would recommend that the prize for experimental work be given to the author of the paper listed as I. Guthrie Bayard, title "Resection of the Pylorus." The committee recommended that the Clinical Prize be awarded the author of the paper, "Researches in New Solutions for the Injection Treatment of Hydrocele," under the nom de plume Epictetus.

Thereupon the secretary opened the envelopes containing the nom de plumes and advised that the paper "Pyloric Resection" was written by Harold L. Thompson of Los Angeles; and the paper entitled "Researches in New Solutions—Injection Treatment of Hydrocele," by Norman J. Kilbourne and Charles J. Murray, both of Los Angeles.

It was ordered that the awards be included in the report of the Council for presentation at the first meeting of the House of Delegates.

4. Medical Appointments by Governor Rolph.—Junius B. Harris, president, read a telegram received from the Honorable James Rolph stating that he had appointed as members of the Board of Medical Examiners Fred R. DeLappe, William R. Molony and Charles T. Sturgeon.

Action by the Council.—On motion of Harris, seconded by Palette, and unanimously carried, the following resolution was adopted:

Whereas, From the date of his inauguration as governor of the State of California, the Honorable James Rolph, Jr., has shown his deep interest in the public health of the state; and

Whereas, He has appointed Dr. J. M. Toner, a physician, a member of the California Medical Association, to the office of Director of Institutions; and Dr. John H. Gallwey, a member of this Association, a regent of the University of California; and

Whereas, He has appointed to the Department of Public Health John H. Graves, M.D., a past president of the California Medical Association; J. B. Harris, M.D., president of the California Medical Association; E. M. Palette, M.D., speaker of the House of Delegates of the California Medical Association; Gifford L. Sobey, M.D., a member of the California Medical Association; William R. P. Clark, M.D., a member of the California Medical Association; Burt S. Stevens, M.D., a member of the California Medical Association; Percival Dolman, M.D., a member of the California Medical Association; and Giles S. Porter, M.D., a member of the California Medical Association; and

Whereas, He has appointed to the Board of Medical Examiners P. T. Phillips, M.D., a past president of the California Medical Association; Charles B. Pinkham, M.D., a member of the California Medical Association; William R. Molony, M.D., president of the Los Angeles County Medical Association; Charles Sturgeon, M.D., vice-president of the Los Angeles County Medical Association, and Fred R. DeLappe, M.D., councilor of the California Medical Association; and

Whereas, Governor James Rolph, Jr., has honored the State of California, himself personally, and the medical profession as a whole by these appointments; now, therefore be it

Resolved, By the Council of the California Medical Association at its sixty-first annual session held at Pasadena, this second day of May, 1932, that a vote of heartiest appreciation be extended to his Excellency, Governor James Rolph, Jr., for his appointments to these offices which are so important to the welfare of the citizens of California; and be it further

Resolved, That these resolutions be spread on the minutes of this Council, and a copy be transmitted to the Honorable James Rolph, Jr.

A copy of the resolution was ordered transmitted to the governor.

5. Delegates to the American Medical Association. The Council was informed that William Sargent, elected to serve instead of Irving S. Ingber, delegate to the New Orleans session of the American Medical Association, was unable to attend. Doctor Kress reported that Percy T. Magan, delegate, would also be unable to attend the New Orleans session. It was stated that delegates must be certified by wire immediately in order to be seated by the Credentials Committee.

Action by the Council.—On motion duly made, seconded and unanimously carried, the following resolution was adopted:

Resolved, That the action taken at the 205th Council meeting regarding delegates to the American Medical Association be reconsidered.

Action by the Council.—On motion of Reinle, seconded by Ullmann, and unanimously carried, the following resolution was adopted:

Resolved, That the action taken at the 205th meeting of the Council on election of delegates to the American Medical Association be rescinded.

Alfred L. Phillips of Santa Cruz was nominated by Ruggles A. Cushman of Santa Ana to serve as delegate to the American Medical Association House of Delegates session at New Orleans, 1932; such nomination was seconded by Fred R. DeLappe. On motion duly made and seconded the nominations were closed and the secretary was instructed to cast the ballot. The secretary cast the ballot and the chairman announced the election of Alfred L. Phillips as delegate to the American Medical Association at New Orleans for the 1932 session; to serve in the place of Irving S. Ingber, delegate.

Lyell C. Kinney of San Diego was nominated by Karl Schaupp of San Francisco to serve as delegate to the American Medical Association House of Delegates session at New Orleans, 1932; such nomination was seconded by Alfred L. Phillips. On motion duly made and seconded the nominations were closed and the secretary was instructed to cast the ballot. The secretary cast the ballot and the chairman announced the election of Lyell C. Kinney as delegate to the American Medical Association at New Orleans for the 1932 session; to serve in the place of Percy T. Magan, delegate.

A telegram of notification was ordered immediately sent to the secretary of the American Medical Association giving the credentials of the newly elected delegates to the 1932 session at New Orleans.

6. Minutes of the Council.—The chairman stated that the minutes of the 204th meeting of the Council had been mailed to all members and if there were no objections, he would entertain a motion for their approval without further reading.

Action by the Council.—On motion of Duffield, seconded by DeLappe and unanimously carried, the following resolution was adopted:

Resolved, That the minutes of the 204th meeting of the Council be approved.

The chairman stated that the minutes of the 205th meeting of the Council would be read by the secretary. The secretary then read the minutes of the 205th meeting of the Council.

Action by the Council.—On motion of Ullmann, seconded by Peers, and unanimously carried, the following resolution was adopted:

Resolved, That the minutes of the 205th meeting of the Council be approved.

7. Membership of Committees of House of Delegates.—The speaker advised that owing to the inability of Doctors Ferdinand Stabel and Carl Howson to serve on committees of the House of Delegates, he had appointed Dr. William H. Kiger as a member of the Credentials Committee and Dr. Harry H. Wilson as a member of the Reference Committee on Reports of Officers and Standing Committees.

8. **Minutes of the Executive Committee.**—The chairman stated that the minutes of the 132nd and 133rd meetings of the Executive Committee had been mailed to all councilors.

Action by the Council.—On motion of Schaupp, seconded by DeLappe, and unanimously carried, the following resolution was adopted:

Resolved, That the minutes of the 132nd and 133rd meetings of the Executive Committee be approved.

9. **Standing Committees.**—The chairman advised the Council that vacancies in standing committees caused by the expiration of terms of office should be given consideration prior to Tuesday's meeting at which time elections would be had.

Doctor Cushman of Santa Ana asked that the vacancy on the Committee on History and Obituaries be considered at this meeting as a special order of business. So ordered.

On nomination of Cushman, seconded by King, Charles D. Ball was elected to fill the vacancy on the Committee on History and Obituaries for the term of three years. On motion duly made, seconded and carried, the nominations were closed and the secretary was instructed to cast the ballot. The secretary cast the ballot and the chairman announced the election of Charles D. Ball as a member of the Committee on History and Obituaries to succeed himself, for a term of three years.

Action by the Council.—On motion of Duffield, seconded by Schaupp, the following resolution was adopted:

Resolved, That the remaining elections of members of Standing Committees be placed on the docket for consideration prior to the second meeting of the House of Delegates.

10. **Report of the Council.**—The amended report of the Council was presented and approved.

11. **Budget.**—The amended budget of income and expenses for the year 1933 was presented. Discussion was then had of the inclusion of a separate item for the Cancer Commission, which is a part of the Department of Public Relations. It was the sense of the Council that the item be included as "Department of Public Relations (including Cancer Commission)" and a lump sum be indicated.

Action by the Council.—On motion of DeLappe, seconded by Duffield, and carried, the following resolution was adopted:

Resolved, That the item in the budget be set at \$14,500 for the Department of Public Relations of which \$4,500 shall be allocated to the Cancer Commission.

12. **Department of Public Relations.**—Consideration was had of the recommendation of the Committee on Public Relations that a separate and distinct bulletin be authorized for the Department of Public Relations. Doctor Dickie stated that an approximate estimate of the cost of publication and distribution of such bulletin was \$2,200 yearly, on the basis of a monthly publication.

Action by the Council.—On motion of Duffield, seconded by Kiger, the following resolution was adopted:

Resolved, That there be no allocation of funds at this time for the publication of a bulletin by the Department of Public Relations, but that space be given in the JOURNAL for whatever matter the Department of Public Relations may submit.

13. **Kent County Survey.**—Doctor Kress presented a survey of Kent County, Michigan, on medical economics.

Action by the Council.—On motion of Kress, duly seconded, the following resolution was adopted:

Resolved, That the secretary be authorized to order a sufficient number of reprints of the Kent County survey to send one copy to each member of the Council and to the chairman of each standing committee.

Doctor Kress stated that the survey costs 50 cents per copy.

Doctors Duffield and Harris voted in the negative.

14. **Kern County Society.**—Doctors Hamlin and Dickie and Mr. Peart reported on the situation in Kern

County. Mr. Peart stated that a resolution would be presented by the Kern County Medical Society to the Board of Supervisors asking that they appoint a committee similar to the County Institutions Commission of Alameda County.

Action by the Council.—On motion of Ullmann, seconded by Schaupp, and unanimously carried, the following resolution was adopted:

Resolved, That Mr. Peart draw up a resolution or communication along the lines suggested by him for submission to the Kern County Society and to each component county society in the Association, and that the resolution be presented for consideration at the next Council meeting.

15. **League for the Preservation of Professional Rights.**—The secretary announced that the meeting of the League for the Preservation of Professional Rights would be held Tuesday at 4 p. m.

Action by the Council.—On motion of Peers, seconded by Duffield, and unanimously carried, the following resolution was adopted:

Resolved, That the Council attend the meeting of the League for the Preservation of Professional Rights at 4 p. m. Tuesday.

17. **County Society, Officers, and Standing Committeemen's Luncheon.**—The secretary stated that the luncheon of officers, county society officers, and standing committeemen would be held on Tuesday at 1 p. m. in the Crystal Room.

18. **Adjournment.**—There being no further business, the meeting adjourned to meet at 9:30 a. m. Tuesday, May 3, 1932.

O. D. HAMLIN, *Chairman.*
EMMA W. POPE, *Secretary.*

* * *

Minutes of the Two Hundred and Seventh Meeting of the Council of the California Medical Association at Pasadena, May 3, 1932

The following minutes were approved by the Council at its two hundred and eighth meeting on May 4, 1932.

Held in Room 18, Hotel Huntington, Pasadena, California, Tuesday, May 3, 1932, at 9:30 a. m.

Present.—President Junius B. Harris; President-elect J. M. King; Speaker of the House E. M. Pallette; Chairman of the Council O. D. Hamlin; Chairman of the Executive Committee T. Henshaw Kelly; Councilors Mott H. Arnold, William Duffield, Fred R. DeLappe, Alfred L. Phillips, Karl L. Schaupp, Robert A. Peers, Henry S. Rogers, George G. Hunter, Ruggles A. Cushman, William H. Kiger, Henry J. Ullmann, and George G. Reinle; Editor George H. Kress; Secretary-Treasurer Emma W. Pope; and General Counsel Hartley F. Peart.

Absent.—Joseph Catton.

1. **Call to Order.**—The meeting was called to order by the chairman, O. D. Hamlin.

2. **Minutes of the Council.**—Minutes of the 206th meeting of the Council were read by the secretary.

Action by the Council.—On motion duly made, seconded and unanimously carried, the following resolution was adopted:

Resolved, That the minutes of the 206th meeting of the Council be approved as read.

3. **Section Program.**—The secretary reported that one of the invited guests had brought a sound picture from the East and was desirous of presenting it before the annual session. Doctor Pope stated that arrangements would have to be made for use of the ballroom with the Sections on General Medicine and General Surgery.

Action by the Council.—On motion of Kress, seconded by DeLappe, and unanimously carried, the following resolution was adopted:

Resolved, That the chairman of the Program Committee be directed to take the matter up with the sections involved, with power to act.

4. **Journals for Members of Woman's Auxiliary.**—Doctor Kress stated that a number of the members

of the Woman's Auxiliary desired to receive copies of the JOURNAL and he had been asked if a special subscription price similar to that offered Utah and Nevada could be secured.

Action by the Council.—On motion of Kress, seconded by Peers, and unanimously carried, the following resolution was adopted:

Resolved, That the Association grant to members of the Woman's Auxiliary the right to subscribe to the JOURNAL at a special rate of \$2 per annum.

5. **Financial Statement.**—Financial statement for the month of March, 1932, was presented by the secretary-treasurer and approved as follows:

MARCH, 1932			
Total receipts for March.....		\$17,287.02	
Total expenses for March.....		7,042.12	
Gain for March.....		\$10,244.90	
Gain for two months.....		18,919.31	
Total gain for 1932.....		\$29,164.21	
Cash on hand, January 31, 1932.....	\$32,791.28		
Cash on hand, Revolving Fund.....	1,000.00		
Cash on hand, petty cash.....	50.00		
Cash on hand, Salary Fund.....	1,300.00	35,141.28	
Total cash on hand, March 31, 1932.....		\$64,305.49	

6. **Better Health.**—Invoice from Better Health, Inc., covering subscriptions for the ensuing year to *Better Health* for legislators was presented.

Action by the Council.—On motion of Ullmann, duly seconded, the following resolution was presented: Resolved, That the invoice be paid.

A vote was then taken and the motion was defeated.

7. **Depositories of Association.**—Discussion was had of the depositories of the Association. The secretary presented a report on funds of the "Trustees of the California Medical Association."

Action by the Council.—On motion of Peers, seconded by Hunter, and unanimously carried, the following resolution was adopted:

Resolved, That in addition to the funds of the "Trustees of the California Medical Association" already invested in Government bonds, another \$25,000 be similarly invested.

8. **Membership.**—Request of the Sacramento County Society for granting of retired membership to Willis E. King was presented and discussed.

Action by the Council.—On motion of Ullmann, seconded by Kelly, and unanimously carried, the following resolution was adopted:

Resolved, That action be deferred until more information is secured.

Request of the Sacramento County Society for granting of retired membership to Samuel E. Simmons was presented.

Action by the Council.—On motion of Kelly, seconded by Hunter, and unanimously carried, the following resolution was adopted:

Resolved, That Samuel E. Simmons, Inverness, member of the Sacramento Society for Medical Improvement, be granted retired membership in the California Medical Association.

Request of the San Bernardino County Society for the granting of retired membership to Homer A. Bogue of Ontario was presented.

Action by the Council.—On motion of Peers, seconded by DeLappe, and unanimously carried, the following resolution was adopted:

Resolved, That Homer A. Bogue, Ontario, member of the San Bernardino County Society, be granted retired membership in the California Medical Association.

Request of the Los Angeles County Medical Association for granting of retired membership to John L. McDaniel, San Fernando, was presented.

Action by the Council.—On motion of Ullmann, seconded by Pallette, and unanimously carried, the following resolution was adopted:

Resolved, That John L. McDaniel, San Fernando, member of the Los Angeles County Medical Association, be granted retired membership in the California Medical Association.

Request of the Alameda County Medical Association for granting of retired membership to Charles L. McVey, Oakland, was presented.

Action by the Council.—On motion of Ullmann, seconded by Cushman, and unanimously carried, the following resolution was adopted:

Resolved, That Charles L. McVey, Oakland, member of the Alameda County Medical Association, be granted retired membership in the California Medical Association.

It was the sense of the Council that applications for retired membership of members still in practice should not be granted.

9. **Program Committee.**—Dr. Lemuel P. Adams of Oakland, member of the Committee on Scientific Work, reported on the suggestions of the committee regarding annual session programs. Doctor Adams stated that the members of the committee felt that the invited guests should be selected by the Program Committee.

Doctor Adams stated that the committee would like to suggest the reelection of John Homer Woolsey of San Francisco, whose term of office has expired.

Doctor Kress stated that he felt that in the annual program each section should give notice of the time of the business meeting and election of officers.

Action by the Council.—On motion of Kelly, seconded by Schaupp, and unanimously carried, the following resolution was adopted:

Resolved, That in succeeding programs, the time and place of election of section officers be included.

10. **Annual Session Papers.**—Discussion was had of the resolution passed at the 132nd meeting of the Executive Committee and the resolution of the Program Committee limiting the number of papers presented at the annual session to be published in the JOURNAL.

Action by the Council.—On motion of Kelly, seconded by Cushman, and carried, the following resolution was adopted:

Resolved, That the resolution of the Program Committee be approved and adopted as the policy of the Council.

Doctor Peers stated that he felt the number of annual session papers published in the JOURNAL should not be limited but that all members should have the right to publish any paper they presented at the annual sessions.

11. **Advertising.**—Discussion was had of the appointment of an advertising agent for southern California.

Mr. Butterworth then spoke to councilors, outlining his plan of handling advertising.

The councilors felt that Mr. Flynn and Mr. Butterworth should confer and discuss adjustments of commissions on advertising in the southern territory.

Action by the Council.—On motion duly made, seconded and carried, the following resolution was adopted:

Resolved, That action on this matter by the Council be deferred until after Mr. Butterworth and Mr. Flynn have discussed the question.

12. **Industrial Accident Commission.**—Letter from the San Bernardino County secretary regarding the attempt of insurance companies to break down the fee schedule set by the Industrial Accident Commission was presented.

Dr. Morton R. Gibbons submitted a report on the situation, outlining the procedure of the Industrial Accident Commission.

Action by the Council.—On motion of Duffield, seconded by Rogers, and unanimously carried, the following resolution was adopted:

Resolved, That the report be received and placed on file, and that a vote of thanks be extended to Doctor Gibbons for his explanation of the situation.

13. **Adjournment.**—There being no further business, the meeting adjourned until 10 a. m., Wednesday, May 4, 1932.

O. D. HAMLIN, *Chairman.*
EMMA W. POPE, *Secretary.*

Minutes of the Two Hundred and Eighth Meeting of the Council of the California Medical Association at Pasadena, May 4, 1932

The following minutes were approved by the Council at its two hundred and ninth meeting on May 5, 1932.

Held in Room 18, Hotel Huntington, Pasadena, California, Wednesday, May 4, 1932, at 10 a. m.

Present.—President Junius B. Harris; President-elect J. M. King; Speaker of the House E. M. Pallette; Chairman of the Council O. D. Hamlin; Chairman of the Executive Committee T. Henshaw Kelly; Councilors Mott H. Arnold, William Duffield, Fred R. DeLappe, Alfred L. Phillips, Karl L. Schaupp, Robert A. Peers, Henry S. Rogers, George G. Hunter, William H. Kiger, Henry J. Ullmann, and George G. Reinle; Editor George H. Kress; Secretary-Treasurer Emma W. Pope; and General Counsel Hartley F. Peart.

Absent.—Doctors Joseph Catton and Ruggles A. Cushman.

1. Roll Call.—The meeting was called to order by the chairman, O. D. Hamlin.

2. Minutes of the Council.—Minutes of the 207th meeting of the Council were read by the secretary, and on motion of Rogers, seconded by DeLappe, and unanimously carried, the following resolution was adopted:

Resolved, That the minutes of the 207th meeting of the Council be approved as read.

3. Powers of the Secretary.—Doctor Kelly moved the adoption of the following resolution, which was sent to the Council for its approval by the Executive Committee because of some misunderstandings as to the power of the secretary to speak for the California Medical Association, and to give the secretary an impersonal resolution which he could use when needed:

Resolved, That the secretary-treasurer of the California Medical Association be and he is hereby authorized to give full information, verbally or by letter, to all councilors, directors, or officers of component county societies of the Association and to all members of the Association upon all matters embodied in the constitution, by-laws, resolutions, and minutes of the Council and Executive Committee, and contained in other records of the Association, except pending matters or matters declared to be executive temporarily by the Council or Executive Committee. He cannot express opinions in his official capacity or in the name of the California Medical Association, the Council, or the Executive Committee except where a ruling has been previously made by one of the above mentioned bodies which covers the matters upon which opinion is asked.

Doctor Kelly's motion for the adoption of the foregoing resolution was seconded by Schaupp and unanimously carried.

4. Member of Trustees of Indemnity Defense Fund. The secretary reported that the term of Lemuel P. Adams, trustee of the Indemnity Defense Fund, had expired.

On nomination of Rogers, seconded by Reinle, Lemuel P. Adams was elected trustee of the Indemnity Defense Fund for the term of three years.

5. Volume of Medical Legal Cases.—Doctor Kress stated that a volume of cases affecting physicians, dentists, nurses, hospitals, etc., from 1850 to January, 1931, had been compiled by Harold B. Clark of Colville, Washington, and that he felt this volume would be of great value to the Association.

Action by the Council.—On motion of Ullmann, seconded by Reinle, and unanimously carried, the following resolution was adopted:

Resolved, That the volume of medical legal cases be purchased by the California Medical Association.

6. Medical Practice and Qualifying Certificate Acts. Doctor Kress submitted a progress report on the Medical Practice and proposed Qualifying Certificate Acts, stating that at the present time action on an initiative seemed inadvisable.

Action by the Council.—On motion of Ullmann, seconded by Kiger, and unanimously carried, the following resolution was adopted:

Resolved, That Doctor Kress's report be accepted.

7. Exhibits at State Fairs.—The matter of exhibits at State Fairs was brought up and on motion of Kelly, seconded by Kiger, and unanimously carried, the following resolution was adopted:

Resolved, That the matter of exhibits at State Fairs be referred to the Department of Public Relations.

8. State Medical Library Exhibit.—Discussion was had of the payment of transportation expense on the exhibit now at the Huntington for the State Medical Library.

Action by the Council.—On motion duly made, seconded, and carried, the following resolution was adopted:

Resolved, That the transportation expense of the exhibit of the State Medical Library now at the Huntington be paid by the Association.

9. Newspaper Advertising.—Doctors Phillips and Kelly submitted reports on the advertising of hospitals in Monterey County.

Action by the Council.—On motion of Duffield, seconded by Schaupp, and unanimously carried, the following resolution was adopted:

Resolved, That a special committee consisting of the chairman of the Executive Committee, the councilor of the Third District, Doctor Phillips, and the General Counsel, Mr. Peart, be appointed to handle the matter in accordance with the discussion had at this meeting.

Action by the Council.—On motion of Kelly, duly seconded, and carried, the following resolution was adopted:

Resolved, That the Department of Public Relations through its Committee on Hospitals, Dispensaries, and Clinics be requested to present a plan covering advertising that can be approved by the California Medical Association.

Doctor Harris voted in the negative.

10. Cancer Commission.—It was stated that the Cancer Commission had requested permission to present a paper by Dr. Edward Ever before one of the general sessions, since presentation at the luncheon in the dining room had been impossible.

Action by the Council.—On motion of Peers, seconded by DeLappe, the following resolution was adopted:

Resolved, That the request of the Cancer Commission be granted.

11. Advertising Agent.—Mr. Flynn and Mr. Butterworth reported to the Council that they had discussed advertising in the southern territory and had reached an agreement on all questions. Mr. Flynn stated that his commission on advertising contracts he now has in the southern territory would terminate in one year from June 1932.

Action by the Council.—On motion of King, seconded by Ullmann, and unanimously carried, the following resolution was adopted:

Resolved, That Mr. Flynn and Mr. Butterworth meet with the general counsel and settle all questions concerning contracts and that the Association proceed with the appointment of Mr. Butterworth as southern advertising representative in accordance with contract prepared by the general counsel.

12. Next Annual Session.—Letter from the Hotel Del Monte inviting the Association to hold the next annual session at Del Monte was read.

Action by the Council.—On motion of Pallette, seconded by Hunter, and unanimously carried, the following resolution was adopted:

Resolved, That the headquarters of the next annual session be Hotel Del Monte, Del Monte, California, and the date be fixed as April 24 to 27, 1933.

13. Standards for Clinics for the Needy and Indigent.—Letter from the Los Angeles Social Agencies was read by the secretary. Doctor Pope stated that

a reply had not yet been received from Doctor Ruddock in answer to the request of the Executive Committee for information.

Action by the Council.—On motion of Rogers, seconded by Duffield, and unanimously carried, the following resolution was adopted:

Resolved, That the matter be tabled.

14. San Francisco County Economic and Public Relations Department.—Letter from Dr. Merton Price, a member of a medical problems group, an independent organization in the San Francisco County Medical Society, was presented. Doctor Price outlined the activities of this group and of the Section on Medical Problems and Public Relations.

It was the sense of the Council that the letter be called to the attention of the Department of Public Relations.

15. Fees.—Letter from a member of the Riverside County Medical Association was read. It was the sense of the Council that the correspondence on file be referred to the secretary of the Riverside County Medical Society.

16. Medical Institutions.—Doctor Hunter stated that in accordance with previous action of the Council designed to raise the standards for medical directors in state institutions, the Committee on Medical Education and Hospitals had made a study of the requirements for such positions.

Doctor Hunter then presented the report of his committee, copy of which is appended to these minutes.*

Action by the Council.—On motion of Peers, seconded by Schaupp, the following resolution was adopted:

Resolved, That the report of the Committee on Medical Education and Hospitals be referred to the Advisory Committee of the Department of Institutions.

17. Standing Committees.—The chairman stated that election of members of standing committees should be held at this time in order that a report could be made at the second meeting of the House of Delegates.

Action by the Council.—On motion of Kress, seconded by Schaupp, the following resolution was adopted:

Resolved, That it be considered at this time that all councilors serving on standing committees have resigned, and the Council proceed with election to fill the vacancies.

On nominations duly made and seconded, the members of standing committees were then elected, and the committees' memberships were stated to be as follows:

Committee on Associated Societies and Technical Groups:			
William H. Geistweit.....	San Diego	1933	
R. Manning Clarke.....	Los Angeles	1934	
Clifford Sweet.....	Oakland	1935	
Committee on Extension Lectures:			
J. Homer Woolsey.....	San Francisco	1933	
Robert T. Legge.....	Berkeley	1934	
James F. Churchill.....	San Diego	1935	
Secretary, ex officio			
Committee on Health and Public Instruction:			
W. R. P. Clark.....	San Francisco	1933	
Langley Porter.....	San Francisco	1934	
Fred B. Clarke.....	Long Beach	1935	
Committee on History and Obituaries:			
Emmet Rixford.....	San Francisco	1933	
George D. Lyman.....	San Francisco	1934	
Charles D. Ball.....	Santa Ana	1935	
Secretary, ex officio			
Editor, ex officio			
Committee on Hospitals, Dispensaries and Clinics:			
Wallace Dodge.....	Los Angeles	1933	
Karl L. Schaupp.....	San Francisco	1934	
John C. Ruddock.....	Los Angeles	1935	

* Editor's Note.—The report of Doctor Hunter, referred to in item 16, is printed in the Miscellany department of this issue of California and Western Medicine. (See page 473.)

Committee on Industrial Practice:			
Mott H. Arnold.....	San Diego	1933	
Daniel Crosby.....	Oakland	1934	
Morton R. Gibbons.....	San Francisco	1935	
Committee on Medical Defense:			
Fred R. DeLappe.....	Modesto	1933	
Henry Shure, Sr.....	Los Angeles	1934	
George G. Reinle.....	Oakland	1935	
Committee on Medical Economics:			
Daniel Crosby.....	Oakland	1933	
Lyell C. Kinney.....	San Diego	1934	
John H. Graves.....	San Francisco	1935	
Committee on Membership and Organization:			
Jesse W. Barnes.....	Stockton	1933	
LeRoy Brooks.....	San Francisco	1934	
Harry H. Wilson.....	Los Angeles	1935	
Secretary, ex officio			
Committee on Publications:			
Frederick F. Gundrum.....	Sacramento	1933	
Percy T. Magan.....	Los Angeles	1934	
Ruggles A. Cushman.....	Santa Ana	1935	
Secretary, ex officio			
Editor, ex officio			
Committee on Public Policy and Legislation:			
Joseph Catton.....	San Francisco	1933	
William Duffield.....	Los Angeles	1934	
Junius B. Harris.....	Sacramento	1935	
President, ex officio			
President-elect, ex officio			
Committee on Scientific Work:			
F. M. Pottenger.....	Monrovia	1933	
Lemuel P. Adams.....	Oakland	1934	
John Homer Woolsey.....	San Francisco	1935	
Secretary of Section on General Medicine, ex officio			
Secretary of Section on General Surgery, ex officio			
Secretary of California Medical Association, ex officio (chairman)			
Committee on Medical Education and Medical Institutions:			
George G. Hunter.....	Los Angeles	1933	
H. A. L. Ryfkogel.....	San Francisco	1934	
George Dock.....	Pasadena	1935	
Committee on Clinical and Research Prizes:			
George Dock.....	Pasadena	1933	
Eugene Kilgore.....	San Francisco	1934	
Arthur L. Bloomfield.....	San Francisco	1935	
Cancer Commission:			
Harold Brunn.....	San Francisco	1933	
Henry J. Ullmann.....	Santa Barbara	1933	
Clarence G. Toland.....	Los Angeles	1933	
Charles A. Dukes, chairman.....	Oakland	1934	
Lyell C. Kinney, vice-chairman.....	San Diego	1934	
Alson R. Kilgore, secretary.....	San Francisco	1934	
William Ophüls.....	San Francisco	1935	
Orville Meland.....	Los Angeles	1935	
A. Herman Zeiler.....	Los Angeles	1935	

18. Medical Service to Indigents.—At the request of Dr. Charles W. Decker, health officer of the city of Los Angeles, Dr. Edward M. Pallette read a resolution on service to the indigent sick.

Action by the Council.—On motion duly made and seconded, and unanimously carried, the following resolution was adopted:

Resolved, That the resolution on medical service to the indigent be referred to the Committee on Health and Public Instruction.

19. Legal Defense in Malpractice Cases.—Certain practices of legal defense by insurance companies in malpractice cases were brought to the attention of the Council at the request of Doctor Cushman.

Action by the Council.—On motion of Peers, seconded by Rogers, and unanimously carried, the following resolution was adopted:

Resolved, That the matter be referred to the general counsel.

20. X-Ray Plates.—It was the sense of the Council that the forms prepared on the ownership of x-rays be given publicity. The general counsel was authorized to handle the matter.

21. Insurance.—Letter from an insurance company regarding the cost of malpractice defense was presented to the Council.

Action by the Council.—On motion of Reinle, seconded by King, and unanimously carried, the following resolution was adopted:

Resolved, That the matter be referred to the Executive Committee for study to ascertain if some standard policy can be adopted.

22. Mexican Medical Society.—Correspondence regarding the Mexican Medical Society was referred to the general counsel for report at the May Council meeting.

23. Group Insurance for Members.—Letter from Dr. Norman J. Kilbourne regarding possibilities of securing a group health and accident insurance policy for members of the Association was presented.

Action by the Council.—On motion of Pallette, seconded by Phillips, and unanimously carried, the following resolution was adopted:

Resolved, That the letter of Norman J. Kilbourne be referred to the Executive Committee.

24. Adjournment.—There being no further business, the meeting adjourned to meet at 10 a. m. Thursday, May 5, 1932.

O. D. HAMLIN, *Chairman.*
EMMA W. POPE, *Secretary.*

Minutes of the Two Hundred and Ninth Meeting of the Council of the California Medical Association at Pasadena, May 5, 1932

The following minutes were approved by the Council at its two hundred and tenth meeting, held at San Francisco on May 28, 1932.

Held in Room 18, Hotel Huntington, Pasadena, California, Thursday, May 5, 1932, at 10 a. m.

Present.—President Joseph M. King; President-elect George G. Reinle; Speaker of the House Edward M. Pallette; Chairman of the Council Oliver D. Hamlin; Chairman of the Executive Committee T. Henshaw Kelly; Councilors William W. Roblee, William Duffield, Henry J. Ullmann, Fred R. DeLappe, Alfred L. Phillips, Karl L. Schaupp, Robert A. Peers, Henry S. Rogers, George G. Hunter, Ruggles A. Cushman, William H. Kiger, Morton R. Gibbons, Junius B. Harris; and Secretary-Treasurer Emma W. Pope, Editor George H. Kress; John H. Graves and General Counsel Hartley F. Peart.

Absent.—None.

1. Call to Order.—The meeting was called to order by the chairman, O. D. Hamlin.

2. Minutes of the Council.—Minutes of the 208th meeting of the Council were read by the secretary and on motion of Kelly, seconded by King, and unanimously carried, the following resolution was adopted:

Resolved, That the minutes of the 208th meeting of the Council be approved as read.

3. Election of Chairman of Council.—Doctor Kelly, chairman pro tem., stated that the first order of business was the election of a chairman for the ensuing year.

Oliver D. Hamlin was nominated by Robert A. Peers, seconded by Alfred L. Phillips, as chairman of the Council for the ensuing year. Henry S. Rogers moved that the nominations be closed and the secretary be instructed to cast the ballot; such motion was seconded by George G. Reinle.

Emma W. Pope, secretary pro tem., cast the ballot and T. Henshaw Kelly announced the election of O. D. Hamlin as chairman of the Council for the ensuing year.

4. Election of Vice-Chairman.—T. Henshaw Kelly was nominated by Edward M. Pallette, seconded by George G. Hunter, as vice-chairman of the Council for the ensuing year. Henry S. Rogers moved that the nominations be closed and the secretary be instructed to cast the ballot; such motion was seconded by Alfred L. Phillips.

Emma W. Pope, secretary pro tem., cast the ballot and O. D. Hamlin announced the election of T. Henshaw Kelly as vice-chairman of the Council for the ensuing year.

5. Election of Secretary-Treasurer.—Emma W. Pope was nominated by Alfred L. Phillips, seconded by Henry S. Rogers, as secretary-treasurer of the

Association for the ensuing year. Henry S. Rogers moved that the nominations be closed and the chairman cast the ballot; such motion was duly seconded.

The chairman cast the ballot of all members of the Council for Doctor Pope and announced the election of Emma W. Pope as secretary-treasurer of the Association for the ensuing year.

6. Election of Editor.—George H. Kress was nominated by William Duffield, seconded by Fred R. DeLappe, as editor of CALIFORNIA AND WESTERN MEDICINE for the ensuing year. Edward M. Pallette moved that the nominations be closed and the secretary be instructed to cast the ballot; such motion was duly seconded.

The secretary cast the ballot and the chairman announced the election of George H. Kress as editor of CALIFORNIA AND WESTERN MEDICINE for the ensuing year.

7. Department of Public Relations and Appointment of Director of Department.—Discussion was had of House of Delegates Resolution No. 1, Organization of Department of Public Relations.

Doctor Graves, former chairman of the Committee on Public Relations, being present, recommended to the Council on behalf of the Committee on Public Relations that Dr. Walter M. Dickie be appointed director of the Department of Public Relations for a period of one month or until further action by the Council.

Action by the Council.—On motion of Duffield, seconded by Pallette, and unanimously carried, the following resolution was adopted:

Whereas, In accordance with organization outlined in House of Delegates Resolution No. 1 for the Department of Public Relations and the Committee on Public Relations, which organization is hereby adopted by the Council; and

Whereas, Such organization provides that the director shall be appointed by the Council after consultation with the Committee on Public Relations; and

Whereas, Said Committee on Public Relations has not yet completed its organization for the year 1932-1933; now, therefore, be it

Resolved, That in accordance with the recommendation of the former chairman of the Committee on Public Relations, Walter M. Dickie be appointed director of the Department of Public Relations for a period of one month or until further action by the Council.

8. Appointment of General Counsel.—On motion of Hunter, seconded by Rogers, and unanimously carried, the following resolution was adopted:

Resolved, That Hartley F. Peart be appointed general counsel for the ensuing year.

9. Appointment of Associate Counsel.—On motion of Kelly, seconded by Reinle, and unanimously carried, the following resolution was adopted:

Resolved, That Hubert Morrow be appointed associate general counsel for the ensuing year.

10. Auditing Committee.—The secretary stated that the chairman of the Council, O. D. Hamlin, had addressed a letter to the Council stating that he had appointed as chairman of the Auditing Committee, T. Henshaw Kelly of San Francisco.

Action by the Council.—On motion of Schaupp, seconded by Gibbons, and unanimously carried, the following resolution was adopted:

Resolved, That the appointment of T. Henshaw Kelly as chairman of the Auditing Committee be approved by the Council.

11. Arrangements Committee.—After discussion, it was decided to allow the appointment of the Committee on Arrangements to lie over until a survey of the various individuals who could handle the work in the vicinity of Monterey could be made.

12. Cancer Commission.—The president, Joseph M. King, stated that he had decided to make no changes in the personnel of the Cancer Commission this year,

that he would reappoint William Ophüls, Orville Meland and A. Herman Zeiler, whose terms had expired; and that the officers of the Commission would remain unchanged, *i. e.*, Charles A. Dukes, chairman; Alson R. Kilgore, secretary, and Lyell C. Kinney, vice-chairman.

Action by the Council.—On motion of Duffield, seconded by Gibbons, and unanimously carried, the following resolution was adopted:

Resolved, That the appointments to the Cancer Commission be approved.

13. Standing Committees.—Discussion was had of the organization of standing committees in relation to the organization of the Committee on Public Relations and the secretary was instructed to urge these committees to select their chairmen prior to the Council meeting on May 28.

14. Date of Next Council Meeting.—Discussion was had of the date of the next meeting of the Council. It was stated that a meeting of the trustees of the California Medical Association, according to its By-Laws, must be held on the fourth Saturday in May. It was felt that since all members of the Council were also members of the trustees, both meetings should be set for the same day.

Action by the Council.—On motion of Pallette, seconded by Phillips, and unanimously carried, the following resolution was adopted:

Resolved, That the date of the next Council meeting be set for Saturday, May 28, 1932, at San Francisco.

15. Medical Service Plan.—John Hunt Shephard of San Jose, member of the Santa Clara County Medical Society, then addressed the Council. Doctor Shephard outlined the plan of providing medical and hospital services for persons whose annual income is less than \$2,000 per annum on an insurance basis, which is now being discussed by the members of the Santa Clara County Medical Society. Doctor Shephard stated that members of the Santa Clara County Medical Society were desirous of obtaining the viewpoint of the Council on such a plan before definite steps were taken to carry out the plan as now outlined. Dr. George L. Barry of San Jose then discussed the plan. It was deemed desirable to ascertain the attitude of the Santa Clara County Medical Association on the plan, and that it should be placed in writing. Certain members of the Council felt that the Department of Public Relations should secure all information pertinent to the plan and present same to the Council.

Action by the Council.—On motion of Kelly, duly seconded, the following resolution was adopted:

Resolved, That the Council has listened with interest to the plan of medical service outlined by Doctor Shephard and requests the Department of Public Relations to make contact with Doctor Shephard and the Santa Clara County Medical Society and to obtain all information possible including the details of the plan in writing and to report its findings to the Council for further study at the earliest opportunity.

16. Pediatrics Section.—Letter was presented from the Pediatrics Section asking that the resolution adopted by that Section opposing the certification of soft curd milk and milk containing added vitamin and mineral content be forwarded by the Council to the American Medical Association.

Action by the Council.—On motion of Harris, seconded by Cushman, and unanimously carried, the following resolution was adopted:

Resolved, By the Council of the California Medical Association, that it go on record as strongly approving the resolution of the Section on Pediatrics of the California Medical Association in which request is made that certification of soft curd milk and milk containing added vitamin and mineral content be opposed by the American Medical Milk Commissions and the Section of Pediatrics of the American Medical Association.

17. Advertising Agent.—The general counsel stated that he had prepared a contract to cover advertising in the Southern California territory for Mr. Butterworth.

Action by the Council.—On motion of Ullmann, seconded by Rogers, and unanimously carried, the following resolution was adopted:

Resolved, That the chairman of the Council and the secretary be authorized to execute a contract covering advertising in the southern territory with Mr. Butterworth in accordance with contract approved by the chairman of the Auditing Committee and the general counsel.

18. Chairman of Committee on Public Relations.—It was the sense of the Council that in accordance with the amendments to the Constitution, Article VII, sections 1 and 4, the chairman of the Committee on Public Relations be invited to attend meetings of the Council and the Executive Committee.

19. Resignation of Associate Editor:

Action by the Council.—On motion of Kelly, seconded by Schaupp, and unanimously carried, the following resolution was adopted:

Resolved, That the resignation of the associate editor be removed from the table.

Doctor Kelly then presented the following resolution:

Whereas, Doctor Pope has wished for some time to cease her duties as associate editor of CALIFORNIA AND WESTERN MEDICINE and has finally presented her resignation from this office to the Council of the California Medical Association; therefore be it

Resolved, That her resignation be accepted with regret, and the thanks and appreciation of the Council be given for her loyal and unswerving service to the California Medical Association; and be it further

Resolved, That at this time no successor to her as associate editor be selected.

Action by the Council.—On motion of Kelly, seconded by Kress, and unanimously carried, the foregoing resolution was adopted by the Council.

20. Resolution of Appreciation:

On motion of Kelly, seconded by Phillips, and unanimously carried, the following resolution was adopted:

Resolved, That the Council of the California Medical Association extend to the Committee on Arrangements and to the Woman's Auxiliary of the California Medical Association its thanks and deep appreciation for the work and accomplishments which have resulted in an annual session not to be forgotten by any of those who attended, and that the management of the Hotel Huntington be thanked for its unfailing courtesy and assiduous attention to the welfare of the members of the California Medical Association.

21. Survey of Expenditures of Association.—Discussion was had of the appointment of a committee to make a survey of the expenditures of the Association as provided in the House of Delegates resolution No. 3, and of salaries of employees pending the report of this committee.

Action by the Council.—On motion duly made, seconded and carried, the following resolution was adopted:

Resolved, That the salaries of all employees of the Association be on a month-to-month basis until the Committee on Survey of Expenditures of the Association reports to the Council.

The chairman of the Council and the Speaker reported that the membership of the Committee on Survey of Expenditures was as follows:

Chairman of the Auditing Committee, T. Henshaw Kelly of San Francisco; Junius B. Harris of Sacramento, Harry H. Wilson of Los Angeles, T. C. Myers of Los Angeles, and Percy T. Phillips of Santa Cruz.

22. Adjournment.—There being no further business the meeting adjourned to meet on May 28, 1932, at San Francisco.

O. D. HAMLIN, *Chairman.*
EMMA W. POPE, *Secretary.*

C. M. A. DEPARTMENT OF PUBLIC RELATIONS

An open forum for progress notes on the department's activities, and for brief discussions on medical economics. Correspondence and suggestions invited. Address the Director, Room 2039, Four Fifty Sutter Street, San Francisco.

This column is conducted by the Director of the Department.

THE INDIGENT PROBLEM AND THE COUNTY HOSPITALS*

By BENJAMIN W. BLACK, M. D.
Oakland

In each modern community in the United States some definite plan for the care of illness among the less fortunate is provided. In many states the law requires that certain public facilities shall be established to care for a class of patients variously designated as paupers or indigents. In the State of California the so-called Pauper Act provides that every county shall relieve and support all pauper persons and those incapacitated by age, disease or accident who are lawfully residents within the county, when such persons are not supported and relieved by their relatives or friends or by their own means or by state hospitals or other state or private institutions. It is also imperative, under the law, to make diligent inquiry to determine the ability of such person or his relatives to bear the actual charges and expense of his maintenance and support. If such indigent, poor, or incapacitated person has kindred such as husband or wife, father or mother, brothers, sisters, children, or grandchildren other than minors, who are able to pay for his care, such kindred, under the law, are required to support the indigent person rather than to allow him to become a public charge.

Under these provisions of law, counties ordinarily provide county hospitals and other institutions where such persons may be cared for at public expense. To a greater or lesser degree counties carry out the provisions of this act and because the term indigency has been so often and differently interpreted by interested individuals, we find that in no state is there a common standard of requirements for admission to the hospitals operated by the counties. In some sections the only requirement necessary for admission to the county hospitals is the opportunity to ask and receive a permit from a county official competent under the law to issue such permits. In other cases, hospitals are so organized that patients are admitted who have an income which is less than an arbitrary standard fixed by those who interpret the law. Little regard is often given to any standard which eliminates patients who can afford to pay yet is flexible enough to include those who are unable to pay.

INTERPRETATION OF THE INDIGENT LAW

Reduced to its simplest and most logical form, such a law may be interpreted to require that for a patient to become a public charge in a county hospital, he must (a) reside in the county and not be entitled to care at the expense of any other county or in any other state; (b) such a patient by reason of incapacity, illness, or disease must require admission to a hospital, such determination to be made after examination by a competent physician; and (c) he must be financially eligible for county care, such eligibility to be based upon a comparison of his income and assets with a definite budget which covers necessities for himself and his dependents and leaves assets to provide for care needed. To carry out these provisions of law, it must follow that trained competent workers shall make individual investigations covering the facts relative to residency, type of illness for which care is required and financial status as applied to any prospective patient. Some such plan is in operation in this county.

* From the department of the medical director of Alameda County.

To serve each community in this county there is established a so-called Public Health Center. A trained social worker, or someone trained in social work is regularly employed. These workers are expected to make the necessary investigations and apply the facts obtained to the income of the family; the budget demanded for necessities; the nature and type of illness for which care in hospital is proposed, together with additional assets to pay for such over and above the absolute minimal needs. When such a study is established under the standards set forth, the Health Center may then admit the patient to the county hospital. Familiarity with rules governing admission, acceptable budgets, location of service given by each county hospital must of necessity be a part of the information available to each worker.

RESIDENCE REQUIREMENT

The law governing the establishment of a legal residence requires that a patient, to become eligible for public care, shall have lived continuously in the state making his residence therein for a period of not less than three years, and he must have maintained his residence within the county from which aid is to be received for a period of not less than one year. Ordinarily, this law does not work any hardship on deserving cases and it does protect the state and county from caring for nonresidents who establish a temporary dwelling in the community in order to receive public care.

MEDICAL REQUIREMENT

The second requirement involves the professional opinion of a physician, and through the county physician, the public health center, or public clinics, or through the services of a private physician, any hospital, or social worker, can receive information upon which to determine the necessity for hospital care. This implies that the patient must be acutely ill and suffering with a disease for which immediate attention is necessary; or the patient must be suffering from some chronic disorder, the neglect of which may result in grave complications and even endanger his life. In addition, there are those who, because of age and infirmity, require the attention of someone, and when no relatives or others are present to give such care, these patients, even though not acutely ill, or chronically ill, may be admitted to the county hospital as an infirm type of indigent case.

CLASSIFICATION OF INDIGENCY

Financial and social eligibility present a much more difficult problem. The skilled worker must consider the nature of the medical care needed as recommended by a physician, and the approximate cost of such care if provided privately or semiprivately in the least expensive manner available. If the patient is entitled to free care elsewhere by virtue of membership in any organization, hospital association or from any other source, his case is not considered within the classification of indigency. Determination is made of total income, value of property and savings of the patient and his near relatives. When the income and resources show a surplus over and above necessities for the family, the skilled worker determines whether such assets are sufficient to pay for the care needed. If there are not sufficient assets immediately available, a decision must be made as to whether there are resources which warrant the family going into debt for medical care, with the probability that the debt may be paid within a reasonable length of time.

FAMILY RESPONSIBILITY

Unless the relationship of those required by law to provide for a patient is very close, the law should not be interpreted that such relatives shall be reduced to indigency themselves in order that their dependents may be provided for privately, but there must be a determination made as to how much the relatives may be expected to deny themselves in order to contribute to the care of the indigent person.

Due consideration must be given to property other than the home that may be owned by those responsible for the care of the person concerned, and to unnecessary luxuries owned by the family, such as an automobile. These are assets that may be used to borrow on if by so doing it is possible to prevent the giving of county aid. Insurance, too, that has a loan value must be considered as one of the possible available resources. If a mortgage is contemplated on the home which is owned by the family, consideration is given to the income in order that there shall be a reasonable assumption that such a liability assumed by the family shall not deprive them of necessities, or ultimately of the home itself.

MAXIMUM FAMILY BUDGET

Various budgets have been suggested as a basis upon which to determine the necessities required in a small family of the social status of laborer or all vocations that would follow in this comparative social rank. An immediate allowance of \$20 for rent with an additional requirement of \$23 for overhead becomes fundamental in preparing a budget. In addition to these figures, \$24 is allowed for the man in the household to provide for food, clothing, street car fare, such entertainment as may be necessary and any other items to be included. For a wife an additional \$19 is provided and then the following amounts are added covering children: A high school boy or girl 16 to 18 years, \$18.50 is allowed. For a child in junior high, \$15; grade school, \$11.50; runabout child, \$10.50; toddler, \$9; infant under one year, \$7.50. The application of these figures to provide the budget of necessity for a man and his wife and two children age three and seven years, would permit: Rent, \$20; overhead, \$23; husband, \$24; wife, \$19; grade school child seven years, \$11.50; runabout child age three years, \$10.50.

In families where the income is provided by several wage earners, due allowance for car fare, extra lunches, etc., must be included in planning the budget. Should the family be making payments on necessary obligations, the amount of required payments, unless they be met from an amount already provided for in the budget, must be taken into consideration.

The above represents a maximum budget when cases are being considered for public care. On the other hand there is a distinct variation when consideration is given to the type of care required. Many children in the public schools are constantly referred to the county hospitals for tonsillectomies. Ordinarily, such cases can be cared for only when the family income is well below the minimal budget. Likewise when care is requested for other similar minor illnesses. In obstetrical cases normal confinements are not imperative periods for hospitalization. County hospitals may, therefore, be considered as primarily for abnormal cases for whom no provision can possibly be made for hospital delivery elsewhere. In normal cases, eligibility depends upon whether or not the patient can provide other arrangements, either hospital care or home delivery, and is therefore, limited to the most indigent cases and those where home care cannot possibly be arranged.

SURVEY OF CASES

A survey of all patients found in this county hospital on February 27, 1932, was made. This survey does not include two employees and eleven newborn. Newborn have the same financial and social standing as have the parents; nor two cases from the county jail. The county is required to give care for cases undergoing county jail sentence. Other than these, there was included in the study 280 cases.

	Per Cent
I. Cases eligible for service being given:	
Class A—Definitely indigent.....	151 or 54
1. Associated Charities cases.....	83
2. Dependent on other public or private charity.....	5
3. Inmates of charitable institutions.....	5
4. Dependent entirely on friends or relatives other than immediate family.....	23
5. Income never up to budget required for bare necessities.....	35
Class A—Temporarily (usually in Class B, C, or D).....	65
1. Indigent due to present unemployment of breadwinner.....	43
2. Indigent due to present illness of breadwinner.....	22
Class B—Close to indigent-line income sufficient for bare necessities only.....	34
Class C—Sufficient margin over bare necessities to pay for slight service.....	7
Class D—Income sufficient for necessities and margin for moderate medical service. Eligible for expensive care only.....	3
II. Cases ineligible or questionable:	
Class E—Income definitely above county budget. Should not require free care.....	6
1. In spite of adequate income have no savings or resources for meeting emergency.....	2
2. Ineligible at first—handled in private hospital till resources exhausted.....	1
3. Could have been handled elsewhere (these to be moved or billed).....	2
4. Entitled to care elsewhere.....	1
(to be moved)	
Class F—Nonresidents without funds.....	14
Total cases included in above study.....	280

To make effective some such plan as this, it requires that patients seeking public care shall be directed to a clinic or a location within reasonable distance from the residence of the patient. At the clinic a trained social worker must be prepared to make the necessary investigation and if the patient is then found eligible, to permit the admission of such patient directly to the hospital. A constant check for purposes of standardization governing the admissions from all such sources must be constantly made in order that the same standards shall apply to all patients seeking admission. With a reasonable number of workers scattered throughout the territory served by a county hospital, investigations of all admissions may be made with little or no difficulty. Standards may be maintained and in general the needs of the community can be provided at public expense without the county having to assume the care of many patients who are not entitled under the law.

If this program or a similar program were adopted in all counties, the medical profession itself could be expected to coöperate. It is interesting to know that physicians, as they are constantly imposed upon, are often among those who insist that the social worker who has denied admission to the patient should reconsider because of the pitiful story which the doctor has heard. Workers trained in dealing with these problems and in placing a suitable valuation upon the statements made, with the ability to check such statements through all sources available, are quite likely, within very reasonable limits, to be more nearly accurate in dealing with the law than can any agency or persons not so trained and not constantly in touch with such problems. These county hospitals with an admission of greater than 12,000 during the last year, have been able to reduce the number of cases cared for who are not entitled to such care, to an average below five per cent. Of these, nearly all are brought to the hospital under emergency conditions and do receive care pending plans for their transfer to other hospitals, or to the care of their own physician. At times the nature of the disease or general physical condition is of such a serious nature that the patient must be kept and treated, as a transfer to other agencies might result in loss of life, or reduce materially the chances of recovery.

With these regulations rigidly enforced, the profession, one hundred members of whom serve as a visiting staff, properly feel that the county hospitals are not in competition with private practice and are extremely willing to give their services, when such services are given only to indigent charity cases and not to those who have assets to pay their own physician in the private hospitals of their own choice.

STATE MEDICAL ASSOCIATIONS*

CALIFORNIA MEDICAL ASSOCIATION†

JOSEPH M. KING.....President
GEORGE G. REINLE.....President-Elect
EMMA W. POPE.....Secretary-Treasurer

OFFICIAL NOTICES

Registration at the Huntington Hotel session totaled 1435: 1250 members, 185 guest physicians, the largest attendance of physicians at any annual session.

The next annual session will be held at the Del Monte Hotel, April 24-27, 1933.

* * *

Clinical and Research Prize Contest Rules‡

(For the California Medical Association Annual Session at Del Monte in 1933)

General Directions to Entrants

1. Any member of the California Medical Association is eligible to compete for the prizes. Any question arising as to the eligibility of a candidate or the admissibility of his essay will be settled by the decision of the Council.

2. Manuscripts must be typewritten on one side of the paper; they must be double spaced; and they must not be folded or rolled. Illustrations or charts must be marked with the title of the paper to which they belong.

3. Essays must not contain more than four thousand words. In judging a paper the committee will take into account the basic importance of the work done and its novelty; the thoroughness with which the research has been carried out; the clearness with which it has been written up; and the neatness of the manuscripts and illustrations.

4. Papers should be sent, preferably by registered mail, to Dr. Emma W. Pope, secretary of the California Medical Association, Room 2004, 450 Sutter Street, San Francisco. They should be identified by a nom de plume or motto only. A separate envelope should be sent to Doctor Pope containing the author's name and his nom de plume or motto, so that after the award is made the name of the writer can be found. Any return addresses or distinguishing marks will be removed from the wrappers before the papers are turned over to the judges.

5. All papers must be in the hands of Doctor Pope before February 15, in order that the judges may finish their work in time for the meeting of the Association.

6. The judges reserve the right to withhold the award in the event that no paper comes up to the standards of excellence they feel should be set.

* This column presents from month to month, for the state medical associations affiliated with California and Western Medicine, official notices and minutes of those organizations; also informative reports of their component county medical units. Secretaries of county medical societies are invited to send to their state association secretaries brief reports of the meetings of their respective county societies. All such reports should be in the hands of the Association Secretaries prior to the fifteenth day of each month, to insure proper compilation.

† For a complete list of general officers, of standing committees, of section officers, and of executive officers of the component county societies, see index reference on the front cover, under Miscellany.

‡ Editor's Note.—For comment concerning prize essays submitted at this year's annual session at Pasadena, see editorial statement in this issue (page 404).

7. If, in the judgment of the editors of CALIFORNIA AND WESTERN MEDICINE, and the editorial councilors, the paper on laboratory research is too technical or otherwise unsuitable for inclusion in CALIFORNIA AND WESTERN MEDICINE, the prize winner will be allowed to publish it in some special journal and will be required to make an abstract for the readers in California.

8. Inquiries relative to the prize contest should be addressed to the chairman of the committee, George Dock, M. D., 94 North Madison Avenue, Pasadena, California.

1 1 1

Directions to entrants for the annual Clinical and Research Prizes who desire to present their contest papers before a section at the same annual session:

1. All papers entered for the Clinical and Research Prizes are eligible to be read at the annual session of the California Medical Association under the following conditions:

2. Each entrant to send one copy of his paper to the state office in the usual way for consideration by the Prize Committee, signed by his nom de plume, and under a title changed so that it could apply to a similar but different paper.

3. Each entrant to send to the proper section the second copy under his own name and proper title.

4. The Prize Committee will consider each article from the standpoint of its relative value to other papers submitted for the prizes, but will be unable because of dissimilarity in the two titles of the papers as given on the program and before the committee to connect the two as being one and the same paper.

5. Section officers will approve or disapprove all papers for places on specific section programs as heretofore. They will have no knowledge that any paper is under consideration by the Prize Committee.

THE CANCER COMMISSION OF THE CALIFORNIA MEDICAL ASSOCIATION

During the period of compilation of clinical committee reports for publication, this column can well be devoted at intervals to abstracts of important articles appearing in special cancer literature. Last month an abstract of the critical review on the present status of gas therapy of cancer was published. This month an abstract of a similar review on chemotherapy follows.

1 1 1

Chemotherapy of Cancer.*—In the chemotherapy of bacterial or protozoal infections, the attack is directed against a foreign parasite. In cancer, whether the disease results from the operation of a virus or not, the therapeutic substance is required to destroy or prevent the anarchical spread of the host's own cells. Whatever the mode of attack of chemotherapeutic substances, it is desirable to establish certain requirements in the treatment of malignant tumors by these substances. In the first instance, treatment must not be localized to the parent growth, since extensions of the tumor by lymphatics and blood-spread metastases would escape the effects of local treatment. The therapeutic substance should therefore be injected

* Abstracted from "The Cancer Review," Vol. VI (1931), p. 537: "Critical Review of the Chemotherapy of Malignant Tumors" by Dr. Robert Cruickshank.

intravenously. It should be deposited from the blood stream principally in the neoplasm and only to a slight degree in healthy tissues and organs; and, in addition, it must be attracted more to tumor than to normal tissue. Further, the ratio between the toxicity of the compound for the body and its toxicity for the tumor cell should not, according to Weil, be less than 3:1 for any substance which is intended for use in the treatment of cancer. This factor has been a great stumbling block to advance in the treatment of tumors by the heavy metals, since the therapeutic dose of many of the compounds approximates closely to the toxic dose.

So many claims for cure of cancer have been made that rigid standards of what constitutes cure must be established. Reports are frequent of patients who have been relieved of pain, have put on weight and in whom function of the diseased organ has been restored. These are mostly subjective symptoms and the improvement is probably in many cases psychic in origin. Alteration in the size of the tumor is the main criterion on which to judge the immediate effect of any substance, and then only such tumors as can be accurately measured should be considered. The relief of an obstructed passage, such as esophagus, must not be regarded as evidence of cure of the tumor; in multiple carcinomatosis, regression of individual nodules may occur spontaneously and should not necessarily be imputed to treatment. Even a reduction in size of the tumor, however, must not be accepted as evidence of a cure. Before a claim for cure be allowed, proof is required of (a) the reduction in size and final disappearance of the tumor, and (b) an absence of recurrence of growth within a period of three to five years.

Wassermann, Keysser and Wassermann (1911) were probably the first workers to attempt the cure of cancer by chemical substances. They reported the treatment of transplanted rat tumors by the intravenous injection of selenium compounds. Owing to the toxicity of the optimum therapeutic dose, however, the majority of animals died during treatment, leaving only three to five per cent of cures. Meanwhile, Neuberg and Caspari (1912) were trying the effects of compounds of the heavy metals—zinc, platinum, tin, copper, silver, cobalt and selenium. In a later paper it was stated that, owing to the approximation of the toxic to the therapeutic dose, the mortality among the treated animals was very high. Keysser (1914) showed that no substance was effective until the growth has reached the size of a cherry stone.

In 1922, Blair Bell, writing on the treatment of malignant disease with colloidal lead, claimed that the abortifacient action of lead was largely due to its affinity and toxicity for the chorionic villi and, believing that the cancer cell is an atavistic reversion to the fetal nutriment seeking type of cell, he introduced the treatment of malignant tumors by intravenous injection of colloidal lead. In a résumé of the methods of preparation and use of colloidal lead and the clinical results obtained (1926) it was stated that of 227 treated patients under review, in thirty-one the cancer was believed cured and treatment stopped. Certain criticisms of his published reports may legitimately be made. (1) It would be desirable to have a detailed account of every case of cancer believed cured by lead therapy. (2) While he states that radiation and operation were utilized "where these could be of assistance," no precise figures are given of the number of cases treated with lead alone. (3) Histological examination of the tumor was not done in a number of cases. (4) In a number of the cited examples of cure, radical operation was followed by lead therapy, and it is *assumed* that the cancer was not entirely removed by operation or that operation *per se* would not have effected cure. (5) There is some discrepancy in numbers of cured cases in different parts of the text. On account of the toxicity of Blair Bell's colloidal lead, numerous other colloidal lead compounds have been used and tried. However, the therapeutic action of other nontoxic compounds is apparently less certain.

Summing up, one may say that the evidence so far is contradictory, no worker getting the striking results or relatively high percentage of complete cures claimed by Blair Bell and his colleagues. The great toxicity of the therapeutically effective preparations is the obstacle, not yet surmounted, to a more general use of colloidal lead. The available data suggest that death of the cancer cell is not due to direct action of the lead on the cancer cell but to indirect effects such as thrombosis of vessels and a stimulation of the reactive tissue. These effects are enhanced when lead therapy is combined with radiation.

Blair Bell's results with colloidal lead and the reputation of selenium in the treatment of cancer determined Todd (1928) to try a combination of these two substances in colloidal form. Todd claims that favorable results, not necessarily cure, have been obtained in the majority of patients. He does not attribute to the lead selenide a directly toxic action for the cancer cell: in cases responding to treatment, there is an increase of small lymphocytes and eosinophils in the blood and a great local increase of fibrous tissue about the tumor. It is considered, therefore, that lead selenide acts by stimulating the defense mechanisms of the body against the invasion of a malignant neoplasm.

It appears that although a specific medical cure for cancer is not yet available, something might be done for the victims of inoperable malignant disease by the careful use of the metallic colloids. The contradictory reports about lead therapy, the toxicity of the metal and the difficulty of preparing a satisfactory lead colloid are the present obstacle to its wider use which the chemist and clinician have not yet surmounted. Lead selenide is at present a more practicable colloidal substance and its exhibition on the lines indicated by Todd would probably result in alleviation of pain and prolongation of life to many cases of inoperable cancer. Whether these or other colloids can in themselves effect complete cure of a malignant tumor is still *sub judice* despite the claims that have occasionally been made. But in combination with other agents, for example, in rendering an inoperable tumor operable or in conjunction with radiation, they afford a means for the treatment of otherwise incurable cancer.

A. R. KILGORE, *Secretary*.

THE WOMAN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION*

Third Annual Session.—The third annual session of the Woman's Auxiliary to the California Medical Association was a most interesting, inspirational event. Splendid speakers reminded us of the ideals of the medical profession and showed us some of the ways we can assist our husbands in upholding these ideals. Three hundred and fifty-four women registered at the convention, a most encouraging outlook for work in California.

The Los Angeles Auxiliary proved a most charming hostess. Luncheons, teas, and dinners brought us together each day, while friendships were formed that will go on through the years. An opportunity was given to go to all points of interest around the city, and also to visit the beautiful gardens of Pasadena.

Mrs. F. E. Coulter, the new president, held a post-convention meeting of the new officers, and work was planned for the coming year.

*As county auxiliaries to the Woman's Auxiliary of the California Medical Association are formed, the names of their officers should be forwarded to Mrs. Louis H. Dyke, chairman of Publicity and Publications Committee, 6008 Rose Street, Oakland. Brief reports of county auxiliary meetings will be welcomed by Mrs. Dyke and must be sent to her before publication takes place in this column. For lists of state and county officers, see advertising page 6. The Council of the California Medical Association has instructed the editors to allocate one page in every issue for Woman's Auxiliary notes.

Much interest was shown in the prize essays on "Educating the Doctor's Wife." *

* * *

Minutes of the Meetings of Board of Directors.—The final meeting of the board of directors of the Woman's Auxiliary of the California Medical Association was called to order by the president, Mrs. W. H. Sargent, at 10:30 a. m., Monday, May 2, at the Huntington Hotel, Pasadena.

All members responded to the roll call with the exception of Mrs. S. M. Weil, Contra Costa County, and Mrs. W. L. Blodgett, Napa County.

The minutes of the previous meeting were read by the recording secretary, Mrs. F. C. Harding, and approved as read. The treasurer, Mrs. C. J. Teass, read her report; also the report of the auditor, which was accepted. Mrs. Teass presented a complete roster of the auxiliary membership for the use of the treasurer. A duplicate will be furnished the president.

Reports of committees were given informally, written reports to be read on Tuesday, May 3.

Mrs. Charles S. Stevens, chairman of Organizations, discussed delinquency in the matter of dues.

Mrs. Weil being absent, the Program chairman's report was read by the secretary.

Mrs. A. M. Henderson, Sacramento, as chairman of Public Relations, reported on units already functioning, and stated Los Angeles County had done outstanding work.

Publicity and Publications chairman, Mrs. Louis Dyke, Oakland, stated that all reports have been accepted for publication in the state journal.

Mrs. W. E. Mitchell, chairman of Hygeia, sent a written report, which was supplemented by Mrs. Clough of San Bernardino and Mrs. Henderson. Informal discussion followed, leading to the conclusion that action should be taken concerning the difference in subscription prices quoted to auxiliaries and to other solicitors for the magazine.

Subscriptions to CALIFORNIA AND WESTERN MEDICINE, in their own name, was urged upon members, and the matter was referred to Mrs. C. S. Stevens, chairman of Resolutions.

The Hospitality Committee chairman, Mrs. Philip S. Doane, did not make a report, saying the "proof of the pudding is in the eating."

In regard to delegates to the national convention at New Orleans, May 6-9, Mrs. Sargent stated that Mrs. Moloney, chosen as a delegate, could not go. Mrs. Coulter having been found ineligible, the board voted to apply the \$100 toward defraying her expenses to the convention be applied to Mrs. Sargent's expenses to New Orleans.

The board then ratified the action of Mrs. Sargent in naming Mrs. Dudley Smith of Oakland and Mrs. William Duffield of Los Angeles as delegates to New Orleans, with Mrs. Smith sponsor to any other California women who may attend.

Mrs. A. A. Alexander, nominated by Mrs. Doane, and Mrs. Philip S. Doane, nominated by Mrs. John V. Barrows, were elected as the two members of the nominating committee from the board of directors.

It was announced that Mrs. A. B. Cook would act as parliamentarian at the meetings on Tuesday and Wednesday.

The secretary was requested to write to Mr. McLean a note of thanks for his services as auditor.

Mrs. Louis Dyke presented the rules for the convention, which were accepted.

The Budget Committee was announced: Mrs. C. J. Teass, Mrs. W. H. Sargent, and Mrs. F. E. Coulter.

Mrs. Thomas Clarke of Oakland was made chairman of the Reference Committee.

* Editor's Note.—The prize essays submitted to the Woman's Auxiliary are printed in this issue as addenda to these minutes.

Mrs. Stevens, chairman of the Resolutions Committee, chose Mrs. James Percy and Mrs. Lyell C. Kinney as members.

Dr. J. Manning Clarke, Dr. Junius B. Harris, and Dr. Joseph King were invited to Mrs. Sargent's luncheon on Tuesday as guests of the State Auxiliary.

Dr. Thomas Clarke and Mrs. Dexter Ball were guests at the board meeting.

Mrs. Doane expressed appreciation and gratitude to Mrs. Sargent and the other officers. She then moved that a rising vote be taken, which was unanimously carried.

Adjournment.

* * *

Minutes of the First Meeting of the Woman's Auxiliary.—The first meeting of the fourth annual session of the Woman's Auxiliary to the California Medical Association convened at 10 a. m., Tuesday, May 3, 1932, in the Gardens of the Huntington Hotel, Pasadena, California, the president, Mrs. W. H. Sargent, of Oakland, presiding.

The corresponding secretary, Mrs. A. A. Alexander, called the roll of delegates by counties.

Mrs. Philip S. Doane of Pasadena, president of the Los Angeles County Auxiliary and chairman of hospitality, gave the address of welcome, which was responded to by Mrs. Dewey Powell of San Joaquin County, the infant unit of the auxiliary.

The Credentials Committee then reported present forty-four delegates, twenty-one alternates, and fifteen board members.

The convention rules were presented by Mrs. Louis Dyke of Oakland, and were accepted and filed with the secretary.

Mrs. A. B. Cook was appointed parliamentarian for the convention.

Mrs. Maynard Harding, recording secretary, read the final report of the third annual meeting. The report was accepted as read.

Mrs. C. S. Stevens, first vice-president, took the chair during the reading of the president's report. It was moved by Mrs. Dexter R. Ball, and seconded by Mrs. F. E. Clough, that the report be accepted. Motion carried.

The president then resumed the chair.

The report of the corresponding secretary, Mrs. A. A. Alexander, was read and accepted.

Mrs. C. J. Teass, treasurer, reported on the auxiliary finances.

Mrs. Teass called particular attention to the refund by Los Angeles County of \$250 which the state board at its February meeting had appropriated for convention expenses.

The following reports of Standing Committees were given and accepted:

Report by Mrs. C. S. Stevens, chairman of the Membership Committee; by Mrs. S. N. Weil's Program Committee; by Mrs. A. M. Henderson, as chairman of Public Relations; by Mrs. Louis Dyke on Publicity and Publications. The *Hygeia* report was read by the secretary, the chairman, Mrs. W. E. Mitchell, being absent.

The reports of county presidents were read, duly accepted, and filed with the secretary.

Mrs. W. H. Sargent then introduced the speaker of the morning, Dr. Clifford Sweet of Oakland, who gave an inspiring address on the subject, "The Doctor's Family."

Mrs. Chesley Bush, Mrs. Dexter R. Ball, and Mrs. H. Waldo Speirs were nominated from the floor as three members of the Nominating Committee, Mrs. A. A. Alexander and Mrs. Philip S. Doane having been previously elected from the state board. It was then moved and seconded that nominations be closed. Motion carried, and these ladies were declared elected.

Mrs. Philip S. Doane then moved that the state and county dues for 1932-1933 remain at fifty cents per person. Seconded and carried.

Then followed convention announcements.

There being no further business to come before the meeting, the meeting was adjourned.

GERTRUDE FISHER HARDING,
Recording Secretary.

* * *

Minutes of the Second Meeting of the Woman's Auxiliary.—The second meeting of the fourth annual session of the Woman's Auxiliary to the California Medical Association was called to order by the president, Mrs. W. H. Sargent, at 10 a. m., Wednesday, May 4, 1934, at the Huntington Hotel, Pasadena, California.

The report of the Credentials Committee was called for, and was as follows: Present, 38 delegates, 26 alternates, and 15 board members, with a total membership of 360 registered.

The recording secretary then read the minutes of the previous meeting, which were accepted as corrected.

The president appointed the following two committees:

Reference Committee—Mrs. Thomas Clarke (chairman), Mrs. J. W. Barnes, and Mrs. Robert Green.

Resolutions Committee—Mrs. Charles S. Stevens (chairman), Mrs. James Percy, and Mrs. Lyell C. Kinney.

The roll call by counties followed.

Mrs. C. J. Teass, chairman of the Budget Committee, read the tentative budget. Upon request for discussion, Mrs. James Percy asked if it would be wise to include a small discretionary account. Mrs. Dexter R. Ball spoke in favor of dividing the \$100 mentioned in the budget for the use of the Membership Committee for traveling expenses so that the district councilors might have the use also of expense money. Mrs. Sargent replied that the \$100 would not be for the expense of any one member of the board but for members especially selected to appear before unorganized county medical societies for the purpose of explaining the work of the auxiliary to them, and organizing auxiliaries in counties where the work of organization was approved.

It was moved by Mrs. Louis Dyke, seconded by Mrs. Scott Gleeten, that the budget be accepted as read. Motion carried.

The president of the San Luis Obispo County Auxiliary gave her report, which had been omitted on Tuesday. The report was accepted and filed with the secretary.

The report of the Nominating Committee was presented by the chairman, Mrs. A. A. Alexander. The committee submitted the following names:

For president, Mrs. F. E. Coulter of Orange County.

For president-elect, Mrs. A. M. Henderson of Sacramento County.

For vice-president, Mrs. C. S. Stevens of Santa Barbara County.

For second vice-president, Mrs. Thomas Clarke of Alameda County.

Recording secretary, Mrs. Paul Quaintance of Los Angeles County.

For treasurer, Mrs. Chester J. Teass of San Luis Obispo County.

For councilors-at-large, Mrs. Willard Newman of San Diego County, Mrs. Elliott Alden of Los Angeles County, Mrs. Dewey Powell of San Joaquin County, and Mrs. R. A. Peers of Placer County.

Nominations from the floor for district councilors followed, and the following were elected: Mrs. Clifford Wright of Los Angeles County, Mrs. E. A. Blonden of San Diego County, and Mrs. J. W. Barnes of San Joaquin County.

Mrs. James Percy, a past president of the state auxiliary and at present second vice-president of the national auxiliary, then addressed the meeting. Mrs. Percy brought greetings from the national auxiliary and spoke on subjects of interest, emphasizing the need of individual member's efforts to increase membership and make favorable contacts.

The report of the Auditing Committee representing the state board was read, accepted, and filed with the secretary.

A letter from Doctor Kress stating that CALIFORNIA AND WESTERN MEDICINE would be offered to auxiliary members at the subscription price of \$2 per year in lieu of \$5 as previously quoted, was then presented.

Dr. John V. Barrows, chairman of the Fee Schedule Committee, was the speaker from the Medical Association for the session. Doctor Barrows spoke of the committee's investigations and of Mrs. Paul Quaintance's valuable work in devising and making available budget charts which have been distributed by the Los Angeles County Auxiliary in connection with the committee's work.

The president thanked Doctor Barrows and urged that all members coöperate by using budget charts.

The election of officers was next in order. The names reported by the Nominating Committee were read by the president. There being no other candidates, Mrs. H. S. Rogers moved that the nominations be closed. This was seconded and carried. A viva voce vote was taken, and the president declared the officers named by the Nominating Committee as duly elected.

The names of the winners in the contest, "The Education of a Doctor's Wife," were announced: Mrs. Emmett A. Pearson, Mrs. Mark Glaser, and Mrs. Whitfield Crane. The successful papers were then read, each being heartily applauded.

The report of the Resolutions Committee was presented by the chairman, Mrs. C. S. Stevens, and consisted of a resolution of thanks and appreciation for the various courtesies extended to make the convention the success it was, and also expressing recognition of the fine work done during the past year by the president, Mrs. W. H. Sargent, and her executive board. It was moved and seconded that the report be adopted. Motion carried.

There being no further business to come before the meeting, the session was declared adjourned.

GERTRUDE FISHER HARDING,
Recording Secretary.

PRIZE ESSAYS—C. M. A. WOMAN'S AUXILIARY

"Educating the Doctor's Wife"

During the last year the Woman's Auxiliary of the California Medical Association announced that three prizes would be awarded to members of the auxiliary who contributed the best essays on the topic, "Educating the Doctor's Wife." The essays which received the awards follow:

FIRST PRIZE ESSAY

By Mrs. Emmet A. Pearson
Los Angeles

Doctors' wives are assuredly made and not born, for it would be asking too much even of eugenics to produce an individual with the required set of unique inhibitions and reactions. Granted then that she is to be made, let us look into the educative processes that are to do the making. It might be well first to inquire as to when the education should begin, pre- or postmatrimonially, and lest there be any controversy on the subject, we shall consider as decisive the answer made by an eminent member of the medical profession when approached on this very point. Said he, "You'd better not educate them too much beforehand or they'll never marry doctors!"

Thus we would suggest an institute for doctors' wives, conducted as part of the educational program

of the Woman's Auxiliaries. Membership on the teaching staff may be made honorary or punitive, as seems best in each auxiliary. Entrance requirements need include no evidence of previous folly save the statement that the applicant has married a duly licensed M. D. The fundamental courses to be required may be divided roughly into arts and sciences. Mathematics as such need have no place because the application of even simple arithmetic to a doctor's income is discouraging, not to say impossible.

The *sine qua non* of the whole course should be the study of the art of discreet speech. This should be extensive and intensive, and must give instruction as to how to cope with the following typical questions:

1. "What sort of an operation did Mrs. Dash have?"
2. "What should be done for infantile paralysis?"
3. "Does Mrs. Blank's little boy have anything catching?"
4. "What does your husband charge?"

There should be illustrative material with specimens from life, and these should include: (a) The doctor's wife who relates the errors made by other men who have dealt with her husband's patients; and (b) The chatty one who mentions her husband's patients by name and ailment, with treatment outlined.

The other art course we suggest as essential would be the art of medical reading and pronunciation. All good doctors' wives should be able to read professional treatises with a look of comprehension, even of enjoyment. This may take some practice. Triumph and reward will come, however, with the ability to see nonchalantly an esoteric word like "gastro-enterostomy"!

The required science courses would also be two in number—phonology and relativity. By the former we mean instruction in the science of dealing with that black imp so entrenched in the physician's household—the telephone. The doctor's wife must learn when to address it just politely, when cordially, when firmly and crisply. She must know the proper occasions for replying, "No. May I take a message for him?" and, "I'll get in touch with him"; and, "The doctor is out and cannot be reached for hours!"

Relativity, as one might expect, would be an elusive, intricate course. It would deal primarily with time, although space and distance would often be involved. For instance, the course should train the doctor's wife to estimate instantly the relationship between the time set for any social engagement and the relative number of minutes or hours due to elapse before the appearance of any given doctor. She must learn to judge from the standpoint of hostess, when she will have a number of doctors to consider, as well as from the standpoint of guest, when it is her responsibility to produce her own doctor at the appointed place, if possible before the hostess' patience has vanished entirely. There would be many other phases of this invaluable course.

Finally, we would suggest that there be no degrees granted. If ever a select auxiliary committee perceives that any doctor's wife has forgotten what she learned, she should be returned for further instruction. Generally speaking, the course will take a lifetime anyway.

SECOND PRIZE ESSAY

By Mrs. Mark A. Glaser
Los Angeles

The Doctor's Wife

If you can hear the midnight ringing of the phone—
and not shiver,
If you can watch the roast beef crumbling in the pan—
and not quiver,
If you can still devour such things as lungs and brains
and like liver;

If you can have your parties scrambled down to
naught—
and still be calm,
If you can gladly return the opera tickets—
and seek no balm,
If you can bow to Medica's relentless reign—
and have no qualm;

If you can watch all your debtors lavishly splurge—
and never sigh,
If you can let a gloating world 'round you surge—
and never cry,
If you can be immuned to fragrant ether fumes—
and never wry;

If above the turmoil a halo you can see—
and feel no 'larm,
If you can ever hold your head high as a tree—
and sing a psalm,
If you can sweetly smile and always helpful be—
and still have charm;

If you can always with tranquillity endure such
martyr's strife,
Then, good comrade, behold the Acme of the doctor's
perfect wife,
And he in grateful homage should to you devote his
love and life.

(With apologies to Mr. K.)

THIRD PRIZE ESSAY

By Mrs. Whitfield Crane
Oakland

A doctor's wife, through the rôle she plays in the partnership, is the greatest single factor making for her husband's success or failure in the practice of his profession. With a woman of understanding, good will, and sympathy for a wife, the medical man has more power given him as a practitioner than can come in any other single way.

Unfortunately, a doctor usually chooses his wife after her educational and social habits are fixed, and many times wholly without regard to what they are. After marriage she has to adapt herself to a totally new status, and it is this ability to adapt herself and self-educate herself to these changed conditions, which make for success or failure.

Sympathy, understanding, and patience—these will be her greatest attributes. A doctor's wife must necessarily deal with the public, and nothing requires more tact than this. She must train herself to keep her own counsel, to turn a sympathetic ear to those who are ill and in need, to patiently stand disappointment when her cherished plans must be changed because of the ever-present emergency call. To keep her home cheerful at all times; this probably is her greatest task. Beset day and night with his patients' ills and troubles, surely the doctor is entitled to one place, his home, where these are not present.

And what is her reward? The satisfaction of knowing that she, through her efforts, has been a great factor in her husband's success. The wife of the business man has few of the joys that come to a doctor's wife as she hears the commendation of her husband. And the knowledge that she, in her own way, is playing an important part in the carrying on of the most self-sacrificing and altruistic profession in the world. That, too, is part of her education.

COMPONENT COUNTY SOCIETIES CONTRA COSTA COUNTY

The fourth monthly meeting of the Contra Costa County Medical Society was held at the Hotel Carquinez, Richmond, on Tuesday evening, April 19.

The meeting was called to order by Dr. S. N. Weil of Rodeo, president, at 8:05 o'clock.

Responding to the invitation of the society, Mr. James Long, county supervisor for this district, met with the members to discuss, answer questions, and to make any possible suggestions toward solving the problem of compensation for, and hospitalization of, those county emergency cases which occur in Richmond and which are of such a nature that their immediate removal to the County Hospital at Martinez would jeopardize the welfare of the patient. After much frank expression of the opinions of various members of the society, Mr. Long suggested that a new

petition be drafted by the society and given him to present to the Board of Supervisors. This he expressed himself eager to do if the conditions contained therein were such as to warrant his endorsement and approval.

Accordingly, Doctor Weil appointed a committee to draw up such a petition, or resolution, the committee to consist of Doctors U. S. Abbott (chairman) and L. H. Fraser of Richmond and J. M. McCullough of Crockett.

At the request of the secretary of the California Medical Association that the society have a committee on public relations, Doctor Weil renamed the present committee, known as the Committee on Medical Economics, to be hereafter known as the Committee on Public Relations. The committee, to remain unchanged in personnel, consists of Dr. L. Abbott Hedges and Dr. W. E. Cunningham, both of Richmond.

The scientific guest speakers of the evening were Dr. C. J. Lunsford and Dr. H. J. Templeton, both of Oakland.

Doctor Lunsford spoke most comprehensively and exhaustively on the ever-interesting subject, *Syphilis*, dealing minutely with the various clinical phases and outlining the treatment in detail. That the subject was one in which the members were intensely interested was evident from the lively general discussion on the part of the local men.

Doctor Templeton's theme was *Cutaneous Malignancies*. He dealt with the various theories of etiological factors, the importance of precancerous treatment, the prevalence of skin cancers and their clinical course and prognostic significance. His paper was much enhanced in interest by the wealth of slide demonstrations of cases, and the presentation of a remarkable clinical case of cancer of the lip, with subsequent plastic surgery.

Doctor Weil announced that the next meeting of the society would be held at the Los Medanos Hotel, Pittsburg, on May 10, would be a joint meeting with the auxiliary, and be in the form of an informal dinner.

The speakers at the May meeting will be Doctor Bowen of Oakland on x-ray interpretation, and our member, County Health Officer Dr. I. O. Church of Martinez, who will give us a county health survey.

The meeting was adjourned by Doctor Weil at 10:30 o'clock, after which the members of the auxiliary joined us in refreshments and a gay social hour, thereby completing one of the most delightful meetings of the year.

It is most gratifying to have the older members come out once more, some who have not attended for a long time.

There were three guests and twenty-two members present: Guests—Doctors C. J. Lunsford and H. J. Templeton, both of Oakland, and Supervisor James Long. Members—Doctors S. N. Weil, Clara Spalding, L. H. Fraser, Margaret Keser, J. M. McCullough, U. S. Abbott, I. O. Church, L. A. Hedges, Rosa Powell, Hall Vestal, E. R. Guinan, W. E. Cunningham, Harry Ford, C. O. Bishop, Kaho Daily, C. R. Blake, William Rowell, M. L. Stauffer, J. B. Spalding, H. L. Carpenter, W. S. Lucas, and John Beard.

* * *

The May meeting of the Contra Costa County Medical Society was held jointly with the Woman's Auxiliary on Tuesday evening, May 10, at the Hotel Los Medanos, Pittsburg.

At the request of the president of the auxiliary, Mrs. S. N. Weil, Dr. S. N. Weil, president of the county society, presided.

A most delightful dinner was served, and from the spirit of good cheer pervading the guests, we are impressed with the need for expressing our appreciation to Dr. Selby Marks of Pittsburg, who as chairman of the Committee on Arrangements, acting with Doctors Stauffer and Kerns, provided the setting for a memorable evening.

A welcome was extended by Doctor Weil, who next introduced Dr. I. O. Church, our county health officer. Doctor Church gave a brief and interesting résumé of the history of health departments, and a most enlightening explanation of our local county health department, its organization, activities, and needs.

Dr. Carl Bowen of Oakland, our second guest speaker of the evening, after being presented to the society and guests by Doctor Weil, offered a most unusual paper on *X-Ray Interpretation of This and That*. His slides included flowers, mummies, chick embryos, shells, authentic and spurious old oil paintings, and a very comprehensive group of pathological specimens.

Because of the length of the program, the reading of the minutes of the April meeting was deferred to the June meeting, which will be held in Richmond.

Mrs. Weil expressed gratification at having so many of the doctors' wives present.

Forty-seven members and guests were present:

Members were: Doctors Fraser, Lucas, Hedges, Leech, Bolinder, Church, Weil, Peters, Marks, Rowell, Vollert, Leavenworth, Nevius, Wise, Kerns, Monteverde, Stauffer, McCullough, Gregory, Rosa Powell, Margaret Keser, Clara Spalding, Beard, Blackshaw, Burke, Sweetser, and Bowen.

Guests were: Mesdames Fraser, Hedges, Lucas, Bolinder, Church, Weil, Bowen, Marks, Monteverde, McCullough, Blackshaw, Burke, Vollert, Nevius, Leech, and the Misses Robinson, Driscoll, Grovenor and Mr. William Slosson.

CLARA H. SPALDING, *Secretary*.

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ORANGE COUNTY

Forty members of the Orange County Medical Association held their regular monthly meeting on Tuesday, May 10, in Ketner's Café, Santa Ana, at seven o'clock, the date having been postponed one week on account of the meeting of the California State Medical Association in Pasadena.

After dinner the group was called to order by President J. Luther Maroon.

The appointment of two special committees, as announced by the president, was as follows:

History and Obituaries—Charles D. Ball (chairman), F. H. Gobar, and R. S. Wade.

Public Relations—J. I. Clark (chairman), H. A. Johnston, and J. M. Burlew.

The attention of the members was called to the serious sickness and disability of Dr. B. F. Mock of Santa Ana. Though not a member of the Orange County Medical Association, a committee, consisting of D. A. Harwood, W. P. Baker, and R. P. Yeagle, was appointed, with instructions to present a full report at the next meeting, regarding Doctor Mock's health and needs.

Dr. C. D. Ball, chairman of the Committee on History and Obituaries, gave a report on the untimely death of Dr. Bessica F. Raiche on April 9. Her obituary was then read and, by unanimous vote, the secretary was ordered to include this as a permanent record on the minutes, and to forward a copy to her daughter.

The first readings on the applications of Dr. Melbourne Mabey of Santa Ana and Dr. Frances H. O'Neil of San Clemente were heard.

The final reading on the application of Dr. Harry C. Nelson of Santa Ana was made, and by unanimous vote he was elected to membership in this association.

Full reports by our delegates to the state meeting at Pasadena were made, Dr. Harry Zaiser and Dr. Dexter Ball each outlining in detail what took place. Dr. R. A. Cushman, state councilor, also gave a very interesting report of the meeting, stating that it was the best attended of any ever held. He explained many of the questions coming up for consideration: reasons for the Medical Defense Fund; explanation

as to why the dues were continued at \$10 per year; and suggestions for the merger of the Medical Economics and Public Relations Committees.

The scientific program for the evening consisted of a symposium on *Diseases of the Pelvis*, with Dr. J. M. Burlew as chairman. This program was in charge of the surgical section of our society. Dr. John Ball of Santa Ana gave a most excellent and original paper on *Carcinoma of the Cervix*, with discussion by Dr. D. A. Harwood. Dr. Claude Steen of Fullerton read a comprehensive and thorough paper on *Nonmalignant Pelvic Pathology*, which was discussed by Dr. G. Emmett Raitt. *Common Lesions of the Cervix and Their Treatment, and a Demonstration of Friedmann's Hormone Test* was the subject of Dr. G. Wendell Olson's paper, and it contained many valuable points for consideration. This was most fully discussed by Doctor Wood of Anaheim. On the completion of these papers, there being no more business to come before the society, the meeting adjourned at 10:15 p. m.

HARRY G. HUFFMAN, *Secretary*.



SAN BERNARDINO COUNTY

The San Bernardino County Medical Society held its regular May meeting at the California Hotel in San Bernardino on Tuesday, the tenth.

This was a joint meeting with the Woman's Auxiliary to the medical society.

Dinner was served at 7:30 p. m., sixty guests being present.

The program was opened by the president, Dr. George Landon, at 8:30 p. m. In the absence of Mrs. Doane, Mrs. Coulter, president of the Woman's Auxiliary of the state medical society, gave a brief address.

After welcoming the guests of the evening, the program was put in charge of Dr. E. B. Godfrey.

Mr. Mack, the first speaker of the evening, was unable to be present on account of illness, so Doctor Godfrey summarized the facts which Mr. Mack was to have brought out.

Mrs. Harriet Fleming, president of the State Nurses' Association, read a paper entitled *Benefit of School Health Education in Promoting Health*. She also showed several interesting exhibits from the Chaffey Union High School.

Following this, Dr. George Landon spoke on *What the County Medical Society Plans to do for the Benefit of Life Extension*.

The next speaker was Dr. Giles Porter, Director of Public Health of the State of California. His subject was, *What the State of California Is Doing Toward Life Extension*.

Discussion was opened by Dr. W. W. Eldredge of Fontana, and participated in by Doctors Webster, Roblee, Wylie, and Wells.

E. J. EYTINGE, *Secretary*.



SAN JOAQUIN COUNTY

The stated meeting of the San Joaquin County Medical Society was held Thursday, April 7, at 8:30 p. m. in the Medico-Dental clubrooms, 242 North Sutter Street, Stockton. The meeting was called to order by Past President G. H. Rohrbacher until the return of President Sanderson a half hour later.

The applications of Doctors Griner and Emrich, which had been approved by the Committee on Admissions, were acted upon. Doctors Griner and Emrich were elected to membership in the society.

The first speaker on the scientific program was Dr. Howard W. Fleming, who read a paper on *The Care of Head Injuries*. He said that with the advent of automobile injuries, head cases had multiplied five times. He presented a simple classification for such injuries illustrated by schematic slides. Fracture through frontal or ethmoid sinuses are usually followed by infection, which greatly complicates the recovery.

Dr. Howard Brown spoke on *The Diagnosis of Spinal-Cord Tumors*. He said that the prognosis in spinal tumors is exceptionally good in view of the relatively benign type of the majority, many of which are encapsulated. A great deal depends upon early diagnosis and the prevention of long periods of compression with its accompanying permanent cord damage. This necessitates a careful study of any persistent recurring pain or other symptoms suggestive of spinal-cord pathology, with accurate study of the spinal fluid pressure readings. It is probably well to consider that any process in this region, which is explainable on the basis of a single progressive lesion, is a cord tumor until proved otherwise.

Brain Tumors, Their Diagnosis, Type, and Prognosis was the subject of a paper by Dr. O. W. Stone, Jr. In addition to the usual general pressure and focal pressure signs and symptoms, the doctor called particular attention to the one symptom that appears as a result of a slow-growing tumor in the silent areas of the brain, namely, convulsions. When these appear in young adults or during middle life without apparent cause, suspicion is aroused and the possibility of a brain neoplasm should be ruled out.

Dr. Howard C. Naffziger read a paper on *Observations on the Pathology and Treatment of Certain Types of Exophthalmos Associated with Thyroid Disease*. He said that many theories had been advanced as to the cause of protrusion of the eyeballs in exophthalmos, but no one had really investigated the matter by surgical methods. It occurred to him to do a decompression operation on the eye-sockets and, in doing so, he found that the extrinsic eye muscles were greatly hypertrophied, which was the apparent cause for the exophthalmos in the cases he had operated on. It was also necessary to relieve the pressure on the optic nerve posteriorly, where the muscles are attached to the bony ring about the nerve. As a result of this treatment the cases recovered their sight and returned to normal condition.

After short discussion of the papers the meeting was adjourned, and light refreshments served.

C. A. BROADUS, *Secretary*.



SANTA BARBARA COUNTY

The regular meeting of the Santa Barbara County Medical Society was held at the Bissell Auditorium of the Cottage Hospital on Monday evening, May 9, with President Koefod presiding.

Due to the fact that this was an open meeting and there were many visitors present, the regular order of business was reversed and the scientific program was first presented.

The president called upon Doctor Ullmann, who introduced the speakers of the evening, Dr. C. G. Toland of Los Angeles and Dr. Robert B. Greenough, assistant professor of surgery at Harvard University.

Doctor Toland spoke on the *Aims and Objects of the State Cancer Commission*, explaining that the function of the Commission is to put before the medical profession and the public all that is now known about cancer.

Doctor Greenough followed with *The Curability of Cancer*, discussing in detail all the known causes, symptoms and treatment, and giving statistical information as to the number of cancer cases that should be cured, provided the public is educated to recognize the early symptoms and not delay in seeing a doctor, who in turn must know all that is known about cancer and must be able to use every diagnostic aid in making an early diagnosis.

The meeting then went into executive session, and the minutes of the last meeting were read and approved.

A communication from the California State Homeopathic Medical Society, inviting the members of the Santa Barbara County Medical Society to attend their meeting at the Biltmore Hotel on May 11-13, was read.

WILLIAM H. EATON, *Secretary*.

SANTA CLARA COUNTY

The Santa Clara County Medical Society held its regular April meeting in the San Jose Medico-Dental Building on the evening of April 20. The meeting was called to order by President Fagerstrom.

Dr. Leon Melkonian of Gilroy and Dr. E. M. Roth of Palo Alto, having been favorably recommended by the Committee on Admissions, were elected into the society.

Inasmuch as one of our members, Dr. Charles P. Durney, had recently been called by death, the president appointed a committee to draw up a resolution of condolence to be sent to the deceased's family, and spread upon the minutes of the society.

In accordance with the recent amendment to the by-laws of the society, the president appointed the following nominating committee, which will report at the regular meeting in May: Doctors C. M. Burchfiel (chairman), Fred Ryan, S. B. Van Dalsem, Bert Loehr, and E. P. Cook.

There being no further business President Fagerstrom introduced Dr. Frank H. Rodin of San Francisco, who addressed the society on the *Recognition and Treatment of Visual Defects in School Children*.

Dr. Charles Ianne gave a paper on the *Early Recognition of Tuberculous Lesions in the School Child*, with presentation of several interesting x-ray plates.

LUCAS W. EMPEY, *Secretary*.

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TULARE COUNTY

The April meeting of the Tulare County Medical Society was held at the Tulare-Kings County Tuberculosis Sanitarium, Springville, at the invitation of Dr. J. Tracy Melvin and with the kindly assistance of Mrs. Melvin, who entertained our ladies during the scientific part of our program.

After a general tour of inspection, conducted by Doctor Melvin, through his institution, the meeting was called and previous minutes were acted upon. Of the business matters before the society it was noted that this year's membership shows thirty-nine paid up to date, which includes one new member, Dr. Barber, as against a membership of forty for 1931 or a delinquency of two members who as yet have not been persuaded to remit 1932 dues.

A letter relative to the limitations of osteopathic licensure was read.

Dr. W. R. Bridgman of Hanford and Doctor Filmore of Strathmore were introduced to the members present.

The members of the Educational Committee not being present to give their report, this matter was laid over until the next meeting.

Following routine business matters, Doctor Melvin introduced Doctor Schaper of Stonybrook Sanitarium, Kern County, who read an instructive paper on *Tuberculin-X-Ray Clinic on Bakersfield Children*, a noteworthy piece of work, and the first of its kind attempted in California. Chest x-rays were advocated as a routine measure in the study of the High School group, in which about three per cent of asymptomatic tuberculosis was discovered.

Doctor Mooney read an interesting paper on *Aspects of Childhood Tuberculosis*, and Doctor Melvin discussed *Surgical Procedures Used in Treatment of Tuberculosis*. X-rays and patients were presented to emphasize significant points.

Drs. Fowler, Parkinson, Gilbert, Melvin, Mooney, Ginsburg, Campbell, Barber, Seligman, Johnstone, E. E. Bond, Zeller, Newton, Filmore, Bridgman, Weiss, and Doctor Schaper, guest speaker, were in attendance with their ladies.

Refreshments were enjoyed at the close of a profitable afternoon. Members present look forward to the next annual pilgrimage to Springville.

K. F. WEISS, *Secretary*.

VENTURA COUNTY

The May meeting of the Ventura County Medical Society was held in the Clinic building of the Ventura County Hospital at 8 p. m. on May 10, Dr. W. S. Clark presiding.

Members present were: Doctors W. S. Clark, Mosher, Bianchi, D. G. Clark, Felberbaum, Strong, Groff, Welsh, Coffey, Little, Illick, and Yeakum.

Doctor Kilbourne of Los Angeles gave an interesting discussion of the *Treatment of Certain Rectal Diseases* by the injection treatment.

Dr. Sterling Clark reported on the activities of the House of Delegates during the last convention.

Doctor Achenbach was appointed chairman for the next month's program.

ARTEMAS STRONG, *Secretary*.

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YUBA-SUTTER COUNTY

The Yuba-Sutter County Medical Society held its annual meeting on Tuesday, May 10.

The following officers were elected to serve for the ensuing year: Allen E. Gray was elected president, to succeed himself; Thomas E. Larner, vice-president; F. W. Didier, secretary-treasurer.

The Board of Censors, Committee on Entertainment, and the delegate and alternate have not as yet been appointed.

We had with us Dr. E. S. Babcock of Sacramento, who gave us a talk on *Infant Feeding*, which was much appreciated. A vote of thanks was tendered to Doctor Babcock by the society.

A luncheon was served at the Hotel Marysville, following the business meeting.

The following resolutions to the memory of Dr. A. L. Miller, recently deceased, a member of this society for the last eighteen years, were adopted.

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IN MEMORIAM—ALBERT L. MILLER

Whereas, Death has removed from our midst our esteemed colleague, Dr. Albert L. Miller; and

Whereas, Doctor Miller was a superb representative of the ethical practice of medicine, a keen, up-to-date student, a careful considerate consultant, frequently our personal medical adviser, and the adviser of our families, a sincere friend whom we shall sadly miss; therefore be it

Resolved, By the Yuba-Sutter County Medical Society that we adopt these resolutions in his memory by a standing vote; that a copy be sent to Mrs. Miller and to Albert Miller, Jr., and that a copy be spread upon our records, and that another be sent to CALIFORNIA AND WESTERN MEDICINE.

F. W. DIDIER, *Secretary*.

CHANGES IN MEMBERSHIP

New Members (9)

Kern County—Parry Douglass.

Los Angeles County—Joseph W. St. Geme.

Napa County—Tyre Harrison Stice.

San Joaquin County—Ernest C. Griner, Samuel W. R. Langdon, Thomas Warren Kyddson.

San Mateo County—Thomas J. Crowley, Chester Frederick Johnson.

Santa Barbara County—Harry H. Alexander.

Resignations (2)

John W. Gunn, from San Francisco County.

Gustav A. Huebner, from San Francisco County.

In Memoriam

Culver, George DeWitt. Died in San Francisco, May 9, 1932, age 55 years. Graduate of University of California Medical School, San Francisco, 1903. Licensed in California, 1903. Doctor Culver was a member of the San Francisco County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

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Smith, Walter Edward. Died in San Francisco, April 24, 1932, age 52 years. Graduate of Toledo Medical College, Toledo, Ohio, 1912. Licensed in California, 1918. Doctor Smith was a member of the San Francisco County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

OBITUARIES



George DeWitt Culver
1877-1932

George Dewitt Culver passed away from among us on May 9, 1932, after a life filled with good works.

I was intimately associated with him for nearly thirty years, first when he was a student and later as an associate, and throughout those long years I never saw him falter in the justice of his intellectual processes, and this type of mind is so necessary for the true physician, whose work consists in correcting the adjustments of the patient to his environment, as well as the regulation of the life processes. This accuracy of thought, together with the capacity for taking infinite pains, made George Culver an unusually clever diagnostician and therapist.

His attention to apparently trivial details that would add to the comfort of the patient or to the success of a procedure often reminded me of a favorite saying of a distinguished clinician in Berlin. In regard to the patient "es giebt keine Kleinigkeiten" (in the view of the patient there are no small things).

He was not a showy, self-assertive man. If attainment of a practice had necessitated the qualities of social brilliancy or political or professional assertiveness or declamation he never would have succeeded. His success was entirely due to attention to the individual patient, both physically and psychically, and in this he had become expert. I had been his teacher, but as he grew in experience I learned more and more to seek his advice in diagnosis and treatment. The student in many instances had become the teacher.

It was a pleasure to watch him do his work, and this enabled him to appreciate good work in others,

and he was not slow in awarding praise where praise was deserved. Generosity was a marked trait in his character.

It was indeed a comfort in discussing a case to know that he was intent on arriving at the truth, and was not either seeking to placate the patient or to make himself agreeable to those with whom he was communing. This was one of the greatest pleasures we enjoyed together in the office.

It is not meant to deprecate the more showy qualities so often leading to success among medical men. They often add to the picturesqueness of the profession, and when controlled by gentlemanly behavior are frequently most likeable. If all the members of our profession were like Doctor Culver, however, no code of ethics would ever have been written.

Along with this self-effacing mildness and gentleness there went an unbreakable honesty and self-esteem. His firm character was an ever present blessing in a trial such as his last illness was, a trial which rarely fails to break down even the most steadfast. This uncomplaining, unselfish philosophy of life in a patient lightens the task of all who minister to him, and alleviates at the same time the sufferings of the patient himself. Those who attended him can testify that he was a most considerate and tractable patient.

The profession has not shown itself unmindful of its esteemed fellow member. Eugene S. Kilgore, Harry R. Oliver, Leroy Brooks, George N. Hosford, Ernest S. du Bray, and Herbert C. Moffit rendered their best efforts and most assiduous care throughout a long and exigent illness. These men, together with a loving and thoroughly helpful wife and an affectionate nephew, did everything possible to alleviate his bed of languishment.

D. W. MONTGOMERY.

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Bessica Faith Medlar Raiche 1875-1932

Bessica Faith Medlar Raiche died at Santa Ana April 9, 1932, at the age of fifty-six years. Doctor Raiche graduated from Tufts College Medical School, Boston, in 1903, was licensed in California in 1916, and was admitted to the Orange County Medical Association in 1917. She served as president of the Orange County Society in 1923. She was also a member of the California Medical Association and a Fellow of the American Medical Association.

Bessica Faith Medlar was the daughter of James B. and Elizabeth (Curtis) Medlar. She was born April 23, 1875, near Fort Atkinson, Wisconsin. Doctor Medlar married Frank C. Raiche. Her husband and one daughter survive.

After graduation Doctor Raiche practiced in Massachusetts for several years, but ill health compelled her to come to California, where she was professionally inactive for a time. During the time that she was devoted to regaining her health she became one of the most famous woman aviators that America has produced. On the 16th of September 1910, Doctor Raiche, in an air machine, designed and constructed by herself and her husband, Frank C. Raiche, made her first successful air flight at Miniola, Long Island. So enthusiastic was the Aero Society of New York City that they presented her with a diamond-mounted gold medal on which was inscribed, "First Woman Aviator of America, Bessica Raiche." Immediately her fame as an aviator spread beyond the sea and she became famous throughout Europe.

Notwithstanding her wonderful success as an air pilot, as soon as her health was fully regained Doctor Raiche abandoned aviation entirely and resumed the practice of medicine that she so dearly loved. For some years preceding her death she limited her practice to obstetrics and gynecology. In her specialty she was very successful, and will be greatly missed by a large clientele.

Carlos Moulton White
1872-1931

Doctor White was born near Alexandria, Minnesota, and died at Visalia, California, on November 6, 1931, at the age of fifty-nine.

After his early schooling in Minnesota, he attended the University of Minnesota, University of Chicago, and Rush Medical College, graduating from Rush Medical College on June 21, 1901.

After living a short time in North Dakota and Washington, he came to Lindsay, California, in 1907, where he married Clophine Bernard. To this union was born a daughter, Carline. In 1909 he moved to Visalia, where he resided until his death.

He was a very capable surgeon, enjoying a large practice. Doctor White was district surgeon for the Southern Pacific Company, and for thirteen years was physician for Tulare County Hospital. He also served as president of the Tulare County Medical Society.

His pleasing personality made him a very large circle of friends. He was a member of the B. P. O. Elks, Masons, Eagles, and Moose.

Doctor White possessed what in this modern age is too seldom found, the spirit of the true physician. He gave unstintingly of his time and energy in the effort to relieve human suffering and to the mitigation of disease, regardless of the patient's social or financial status.

No road was ever too long or night too dark and stormy to deter him from going to the relief of a human being who was ill or otherwise in distress.

His passing has brought sorrow to the hearts of those who knew him well. Their memory of him will always be replete with thoughts of his unvarying kindness and affection.

NEVADA STATE MEDICAL
ASSOCIATION

A. C. OLMSTED, Wells.....	President
O. HOVENDEN, McGill.....	President-Elect
J. H. HASTINGS, Pioche.....	First Vice-President
E. E. HAMER, Carson City.....	Second Vice-President
HORACE J. BROWN, Reno.....	Secretary

COMPONENT COUNTY SOCIETIES
WASHOE COUNTY

The Washoe County Medical Society entertained at the Riverside Hotel, Reno, on May 10 in honor of the speaker of the evening, Dr. Edward W. Fleming of the neurological department, University of California. Following luncheon, Doctor Fleming gave a delightful résumé of the sights and scenes from his recent trip to the Orient.

In the evening at eight o'clock, the Washoe County Medical Society convened at the State Building. Following the reading of the minutes of the last meeting, the acting president, Dr. A. R. DaCosta, presented Dr. Howard W. Fleming to the society.

Doctor Fleming began by prefacing his remarks with the announcement as made by the local secretary, Doctor Bath, with reference to deaths caused by automobiles in the United States last year. The statistics for 1931 were appalling. Upward of 30,000 persons were killed in motor accidents in the United States last year. Washoe County, Nevada, with a population of 27,000, lost fourteen by automobile deaths in 1930. In 1931 twenty-two were killed in automobile accidents, and one in an airplane crash.

The annual death list of killed and wounded in the United States by automobile alone, is equal to the sum total of American soldiers killed and wounded in the World War. This is a most serious fact for vital statisticians to consider and for state traffic officers to suggest means of relief. Doctor Fleming said if 30,000 were killed, there were in all probability thou-

sands more living with brain injuries of more or less serious extent. This brought him to the consideration of the topic for the evening, *Skull Fractures and Brain Injuries*.

The following is a résumé of a most excellent *ex tempore* address which was illustrated throughout with lantern slides.

SKULL FRACTURES AND BRAIN INJURIES

In dealing with so serious an injury as skull fracture or brain injury, or both, the attending physician should be prepared to do certain essential things, which if done by surgeons of experience in brain injuries might go a long way to insure not only the recovery of the patient, so far as life is concerned, but greater, also, the recovery of the patient to the extent that the patient can again resume his previous occupation in a gainful manner, free from apparent skull defects and with a feeling of capability in being able to carry on.

The first thing to know is that patients never die from skull fractures *per se*, but if they die, death follows laceration of brain substance, hemorrhage, and edema. And the patient might have all these and yet have no skull fracture.

Upon meeting a patient, say on the roadside, the first consideration is to have the patient made comfortable and keep up his vitality, which has been greatly reduced by shock of the accident. Stimulating with caffeine and hot-water bottles is in order, but no hypodermics of morphine, as morphin is a respiratory paralyzer, and that is what the physician must seek to avoid, namely, respiratory paralysis.

The first thing necessary is to make observations of the type of injury. Scalp wounds, condition of pupils (normal or dilated, one or both), localized paralysis (normal or stertorous breathing reflexes), pulse rate, and, if any, bloody or serous discharges appear at the nose or from the ear.

It is but the work of a few minutes to determine these important outward signs of inward distress. Does the patient have visible fracture with or without depression and torn scalp, or is the injury altogether within the skull? If the patient's condition permits, if there are scalp wounds present, these should receive thoroughly approved surgical attention such as shaving if necessary the entire head, thoroughly exploring the width and depth of the scalp wounds and thorough antiseptic cleansing of the same. Ragged edges are to be debrided, and after suture, if in doubt, drainage instituted and thorough aseptic dressings applied to head.

If the patient has responded to stimulants (not whisky or morphin) and he can be placed in a hospital without too much fatigue to the patient, such is advised.

In the hospital or at home the following should be done: First, intravenous injections of standardized prepared solutions of glucose, 50 cubic centimeters per injection. This can be given from four to six times in the first twenty-four hours or oftener, as indications require. Next, one or two ounces of saturated solution of magnesium sulphate by mouth or stomach tube or nasal catheter. If unable to introduce this into the stomach, then double this quantity every six hours and give by bowel. Then a careful determination by the same physician or trained nurse of the arterial tension. A high systolic with a low diastolic with a wide pulse pressure is a sure indication of continued intracranial hemorrhage or a resultant anoxemia with brain edema. This should call for spinal puncture, extracting 20 to 60 cubic centimeters of spinal fluid per puncture. If a spinal manometer is used, the rapid gush of the spinal fluid will register high on the instrument, the normal pressure being about 90 to 110 millimeters of mercury. Then take the blood pressure again. Blood pressure should be taken every one-half hour and always by the same person. The physician if necessary can train the nurse in a few readings on the people in the house or hospital so as to be able to correctly read the blood pressure.

Referring to the abnormal variation in pulse pressure, there is either a continuous hemorrhage going on external to the brain substance, or an anoxemia, which is oxygen starvation to the brain substance. If hemorrhage or anoxemia is permitted to continue, the patient dies from respiratory paralysis. To prevent this, dehydration by Epsom salts in generous quantity by mouth or bowel, or a drop or two of croton oil on the back of the tongue, frequent intravenous injections of 100 to 200 cubic centimeters hypertonic salt or Ringer's solution or glucose, or both, will dehydrate the brain, preventing anoxemia and hemorrhage if such prevention is possible by therapeutic means.

The question of brain surgery is one to be determined by the brain surgeon. But prompt and efficient administration of the above outlined measures are to be done in all first-aid cases of brain injuries.

All discharges from nose or ears should be gently wiped away and the openings gently plugged with sterile cotton. Examination of the eye fundus should be attended to by an eye surgeon. If the above therapeutic decompression aid is given, later surgical decompression will frequently be unnecessary. If no surgery is done and the patient is kept thoroughly dehydrated, and the quantity of fluids by mouth is limited to twenty to thirty ounces per day, the attending physician will have done all that is usually possible to be effected by the intelligent application of therapeutic measures.

It must be borne in mind that brain injuries may range from simple concussions attended with temporary unconsciousness, but with full mental and physical restoration, to grave or fatal rupture of brain substance with subsequent loss of mental or physical well-being or death. Not all patients who have had brain injuries die. But when the injury is deep-seated and destructive to the brain tissue, a high percentage, 60 to 70 per cent, will die in the first four or five hours. Then of those who will die, 25 per cent will die within the next one hundred hours. The remainder will die either within a few days or a week. But it is for those who might have the chance to live that prompt and continued measures must be carried out as above outlined. The attending physician must at all times bear in mind that not only must the patient be given a chance to live, but that he must be restored to a normal condition of well-being, both physical and mental, and able to take his part again as an economic factor in his social surroundings.

Following high expressions of commendation for the excellency of the essayist's address, the society adjourned.

THOMAS W. BATH, *Secretary*.

UTAH STATE MEDICAL ASSOCIATION

R. A. PEARSE, Brigham City.....President
F. M. McHUGH, Salt Lake City.....President-Elect
L. R. COWANS, Salt Lake City.....Secretary
J. U. GIESY, Kearns Building, Salt Lake City
.....Associate Editor for Utah

COMPONENT COUNTY SOCIETIES

SALT LAKE COUNTY

A regular meeting of the Salt Lake County Medical Society was held Monday evening, April 25, at the Newhouse Hotel. The meeting was called to order by the president at 8:05 o'clock. There were fifty-two members and no guests present.

It was moved and seconded that the monthly bulletin be continued. Passed.

Dr. G. G. Richards gave a report on the San Francisco meeting of the American College of Physicians. Dr. Richard Middleton presented a paper on *Recent Advance in Urology*. Dr. J. P. Kerby presented a paper on *Intravenous Urography*.

Discussion of these papers was presented by Doctors Q. B. Coray and G. G. Richards.

Moved by Dr. F. M. McHugh and seconded by Dr. S. G. Kahn that arrangements be made for a joint meeting with the dental society in June, and that a committee be appointed to make arrangements.

Dr. L. E. Viko made certain announcements for the health department, asking for an expression of opinion on demand for certified milk and on the value of radio broadcast and bulletin. Moved by Dr. A. C. Callister that these questions be referred to the Committee on Public Health, with power to act. Passed.

Dr. C. Shields made a preliminary report for the Committee on Medical Economics. Dr. C. J. LaBarge made a preliminary report for the Committee on Public Policy and Legislation. Dr. R. T. Woolsey reported on activities of medical finance companies.

Dr. G. N. Curtis moved that secretary write our congressman expressing opposition to the Jones Bill.

Dr. F. M. McHugh moved an amendment that the motion be referred to the Committee on Public Policy. Passed.

* * *

The regular meeting of the Salt Lake County Medical Society was held Monday evening, May 9, at the Holy Cross Hospital. It was called to order by the president at eight o'clock. There were thirty-nine members and two guests present.

Dr. A. N. Leonard presented a case of *Mixed Tumor of the Mouth*. Dr. T. A. Flood reported the pathology of the *Removed Tumor*, and a case of *Cystoma in a Child*. Drs. T. Welsh and T. A. Flood reported a case of *Neuroblastoma of the Eyes*. Dr. C. Shields presented a case of *An Acute Exacerbation of a Chronic Encephalitis with Hemorrhage into the Ventricle*. Dr. T. W. Stevenson reported a case of *Congenital Strangulated Hernia of the Umbilical Cord*. Dr. E. D. Hammond presented a case of *Epidemic Encephalitis Complicating Tonsillitis*. Dr. R. J. Friel reported a case of *Splenomegaly Associated with Cholelithiasis, with Recovery from the Splenomegaly after Cholecystectomy*.

L. E. VIKO, *Secretary*.

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WEBER COUNTY

At the regular meeting of the Weber County Medical Society, which was held on April 21, Dr. B. O. Whitten, superintendent of the State School for Feeble-Minded at American Fork, read a very interesting paper on feeble-mindedness and its relationship to the people of the state. He also discussed the organization of the state school and outlined a program of future development necessary for the proper care of the mental unfortunates of the state.

WILLIAM M. MCKAY, *Secretary*.

Suprarenal Cortical Hormone and Respiratory Metabolism.—Webster and his associates made an attempt to determine the rôle of the suprarenal cortex in the regulation of respiratory metabolism. Following bilateral suprarenalectomy in cats, there was a maximum fall of approximately 50 per cent in metabolism. The administration of suprarenal cortical hormone to these animals caused the respiratory metabolism to return to normal in from twenty-four to forty-eight hours. This change occurred also in animals which had been subjected to total thyroidectomy prior to the beginning of the experiment. Subcutaneous injection of large amounts of suprarenal cortical hormone was not found to affect the respiratory metabolism of normal cats or rabbits. Similar quantities of the hormone, when injected into the thyroidectomized cats, caused an increase in metabolism of from 15 to 30 per cent in 80 per cent of the cases. It would appear that the suprarenal cortical hormone exerts an influence, either direct or indirect, on the mechanism of respiratory metabolism and that this effect can occur independently of the thyroid.—*American Review of Tuberculosis*, and *Journal of the American Medical Association*, Vol. 98, No. 17.

MISCELLANY

Under this department are ordinarily grouped: News; Medical Economics; Correspondence; Twenty-five Years Ago column; Department of Public Health; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

NEWS

Coming Meetings—

American Federation of Organizations for the Hard of Hearing, San Francisco, June 20-23, 1932. Dr. Austin A. Hayden, Chicago, president.

Medical Library Association, San Francisco, June 20-22, 1932. Miss Marjorie J. Darrach, 645 Mullett Street, Detroit, secretary.

National Tuberculosis Association, Colorado Springs, June 6-9, 1932. Dr. C. J. Hatfield, Seventh and Lombard streets, Philadelphia, secretary.

Pacific Northwest Medical Association, Spokane, Washington, June 27-29, 1932. C. W. Countryman, 280 Paulsen, Medical-Dental Building, Spokane, Washington.

Southern California State Dental Association, Los Angeles, June 13-15, 1932. Charles M. Alderson, 606 Brockman Building, Los Angeles.

Western Branch of the American Urological Association, Portland, Oregon, July 1 and 2, 1932. F. S. Dillingham, 320 Fidelity Building, Los Angeles, secretary.

University of California Medical School.—Promotions have been announced as follows:

I. Maclaren Thompson, from associate professor of anatomy to professor of anatomy.

Robert O. Moody, from associate professor of anatomy to professor of anatomy.

Paul L. Kirk, from instructor in biochemistry to assistant professor of biochemistry.

Sidney J. Shipman, from assistant clinical professor of medicine to associate clinical professor of medicine.

Benjamin L. Freedlander, from instructor in medicine to assistant clinical professor of medicine.

Olive N. Ehrenclou, from assistant in medicine to instructor in medicine.

Norman N. Epstein, from instructor in dermatology to assistant clinical professor of dermatology.

Frances Torrey, from assistant in dermatology to instructor in dermatology.

John M. Graves, from assistant in dermatology to instructor in dermatology.

Francis S. Smyth, from associate professor of pediatrics to professor of pediatrics.

William A. Key, from assistant in orthopedic surgery to instructor in orthopedic surgery.

Keene O. Haldeman, from assistant in orthopedic surgery to instructor in orthopedic surgery.

Lewis F. Morrison, from instructor in otorhinolaryngology to assistant clinical professor of otorhinolaryngology.

Robert S. Stone, from assistant professor of roentgenology to associate professor of roentgenology.

Abraham Bernstein, from assistant in obstetrics and gynecology to instructor in obstetrics and gynecology.

New appointments of the rank of instructor or higher:

Sylvan L. Haas, associate clinical professor of orthopedic surgery (from March 7, 1932).

Moritz Weber, assistant professor of otorhinolaryngology.

Gordon Alles, lecturer in pharmacology.

Edward L. Munson, lecturer in preventive medicine and public health (from January 1, 1933).

Thomas D. Woodson, lecturer in psychiatry (from January 1, 1932, to May 15, 1932).

Thomas L. Long, lecturer in psychiatry (from January 1, 1932).

Verne T. Inman, instructor in anatomy.

Sabbatical leave of absence for 1932-33:

Robert O. Moody, professor of anatomy.

American Federation of Organizations for the Hard of Hearing in San Francisco.—The thirteenth annual conference of the American Federation of Organizations for the Hard of Hearing will be held at the Hotel St. Francis, San Francisco, June 20-23, 1932. This federation is composed of more than a hundred leagues for the hard of hearing, of which twenty are located in California cities. The founder and honorary president of the federation is Dr. Wendell C. Phillips of New York City, former president of the American Medical Association.

A luncheon to visiting otologists under the chairmanship of Dr. Cullen F. Welty of San Francisco will be held at the St. Francis Hotel on Monday, June 20. The scientific session of the conference will be held Wednesday morning, June 22. Following is the program:

Willing Ears—Austin A. Hayden, M. D. Discussion: Harold A. Fletcher, M. D., San Francisco; Robert C. Martin, M. D., San Francisco.

Legal Aspects—Mrs. Annette Abbott Adams, San Francisco, attorney-at-law, formerly assistant United States Attorney-General.

Hearing Aids—Isaac H. Jones, M. D., Los Angeles.

Research in Deafness—Moritz Weber, M. D., Hooper Foundation. Discussion: Karl F. Meyer, Ph. D., director, Hooper Foundation; Hermann Becks, M. D., D. D. S., assistant professor, dental pathology, Hooper Foundation.

Dr. William J. Mellinger of Santa Barbara will preside at the closing banquet of the conference, Thursday, June 23.

Western Branch of the American Urological Association.—The eighth annual meeting of the Western Branch Society of the American Urological Association will be held at Portland, Oregon, July 1 and 2.

Friday, July 1, there will be a dry clinic in the morning; luncheon at the Heathman, the official hotel; in the afternoon, papers. A banquet and entertainment at the University Club will be held in the evening.

Saturday, July 2, papers in the morning; luncheon, including the ladies. In the afternoon, a motor trip up the Columbia River Highway; and in the evening a barbecue, including the ladies, is programmed. Fishing and horseback trips will also be provided. All members of the society will be invited to attend.

American Occupational Therapy Association.—The American Occupational Therapy Association, 175 Fifth Avenue, New York, is about to issue its first annual directory of qualified occupational therapists, which will include the names of those who applied and were found qualified for admission to the national register established by the association early in 1931.

Acting on the advice of leading medical and nursing organizations, the association decided, as a first step toward the establishment of a national directory, to set up minimum standards of training, which were first promulgated in 1923. The standards were raised in 1926 and again in 1929, and the latest standards are now being met in the leading training schools recommended by the association.

Meeting of Southern California State Dental Association.—The Southern California State Dental Association will hold its thirty-fifth annual meeting in the Los Angeles Biltmore Hotel on June 13, 14, and 15, 1932.

The outstanding guest essayists on this program will be Russell L. Haden, M. D., of the Crile Clinic,

Cleveland, Ohio, and Nathan Sinai, D. P. J. M. S., of the University of Michigan.

On Monday evening, June 13, at 8 o'clock a special joint meeting of physicians and dentists will be held in the Major Theater in the Beaux Arts Building at Eighth and Beacon streets, at which time Doctor Haden will speak on "The Present Status of Dental Infection in Clinical Medicine." Doctor Sinai will address the meeting on the subject of "The Social Evolution in Medicine and Dentistry."

A cordial invitation is extended to the members of the medical fraternity to be present at this meeting as well as the sessions in the Biltmore Hotel from Monday to Wednesday.

Pasteur Society of Central California.—The last regular meeting of the Pasteur Society of Central California was held in San Francisco, May 11, 1932. About ninety members and guests attended the dinner, and the following program was presented on psittacosis, or parrot fever.

Dr. H. L. Wynns, epidemiologist of the State Department of Health, spoke on the epidemiological investigation of several cases of psittacosis in California. Dr. J. B. Luckie, vice-president of the Pasadena Hospital, gave the clinical aspects of the disease. Dr. K. F. Meyer, director of the Hooper Foundation for Medical Research, presented an address on the history of psittacosis.

MEDICO-LEGAL

OPINION OF CALIFORNIA ATTORNEY GENERAL ON CHIROPRACTORS SIGNING DEATH CERTIFICATES

Considerable interest was recently aroused by statements which appeared in the lay press that chiropractors would hereafter be permitted to sign death certificates in California.

For the information of members of the California Medical Association, this issue of CALIFORNIA AND WESTERN MEDICINE prints the opinion which Attorney-General U. S. Webb of California rendered to District Attorney Thomas Whelan of San Diego County, who brought up the subject of the rights of chiropractors to sign death certificates in California.

The opinion of Attorney General Webb follows:

San Francisco, March 25, 1932.

Honorable Thomas Whelan,
District Attorney, San Diego County,
Court House,
San Diego, California.

Dear Sir:

We have your communication of the 4th inst. in which you enclose a copy of an opinion rendered by your office to your County Health Department in the matter of the privilege of chiropractic licentiates to sign death certificates.

You point out that Section 13 of the Initiative Chiropractic Act of 1922 (Deering's General Laws, 1923, Act 4811) states that "chiropractic licentiates shall observe and be subject to all state and municipal regulations relating to all matters pertaining to the public health, and shall sign death certificates and make reports as required by law to the proper authorities, and such report shall be accepted by the officers of the departments to which the same are made."

You have reached the conclusion that although the above section might appear to authorize chiropractic licentiates with no further licenses or certificates from the State of California to sign death certificates, this is not a proper construction of the law when considered in connection with other statutes of this state.

You also call attention to the fact that Section 18 of the said Initiative Act provides that nothing therein contained shall be construed as repealing the "Medical Practice Act" of June 2, 1913, or any subsequent amendments thereof, except in so far as that act, or said amendments, may conflict with the provisions of the Initiative Act as applied to persons licensed under said Initiative Act to which extent any and all acts or parts of acts in conflict therewith are repealed.

You have advised that in order to be qualified to sign death certificates, the licentiate must be a physician as defined in the Medical Practice Act of this state.

We will first take up the vital statistics registration law of California (Act 9008, Deering's General Laws, 1923), being Chapter 378 of the Statutes of 1915, as amended. This is an act to provide a central bureau for the preservation of records of marriages, births and deaths, and to provide for the registration of all births and deaths, the establishment of registration districts under the superintendence of the State Bureau of Vital Statistics, etc. The State Board of Health is directed to maintain a Bureau of Vital Statistics, which shall have charge of such matters as above described. The board is required to appoint a state registrar, who shall be the director of vital statistics. The state registrar is required, under the direction of the State Board of Health, to have charge of the registration of births, deaths and marriages, and shall procure the registration of the same in each primary registration district as constituted in the act, and also have this registration in the Bureau of Vital Statistics in the State Board of Health at the capital of the state.

Section 7 describes the form of a death certificate. Among other things it is provided, in subdivision 17 of said section 7, that there must be a certification as to medical attendance on the decedent, and the "signature and address of physician or official making the medical certificate." Here we see a description of the person authorized to sign a death certificate as being either a "physician" or "official making the medical certificate." The theory of your opinion is that only a physician or such an official as, for instance, a coroner where there has been no medical attendance, can sign the death certificate. There are several other references in this vital statistics registration law to the duties of "physicians" in the premises. Of course, a chiropractor might be a physician, and also, without being a physician, might be a coroner. In other words, you have reconciled the Chiropractic Initiative Act with the General Medical Practice Act, and the Vital Statistics Registration law. You conclude that chiropractors may make such death certificates only when qualified under the provisions of the other statutes.

* * *

An examination of the Medical Practice Act of this state, and also of the Initiative Chiropractic Act, shows a very clear distinction between physicians and drugless practitioners. Section 8 of the Medical Practice Act, being General Act 4807, Deering's General Laws, 1923, gives the forms of certificates that may be issued. They are, first, physicians' and surgeons' certificates; second, a certificate authorizing the holder thereof to treat injuries, deformities or other physical or mental conditions without the use of drugs or what are known as medical preparations, and without in any manner severing or penetrating any of the tissues of human beings, etc., which certificate shall be designated "drugless practitioner's certificate," and then other forms of certificates in which we are not interested are described.

Various requirements in the act provide for considerable qualifications for an applicant for physician's and surgeon's certificate in addition to those provided for an applicant for a drugless practitioner's certificate. The preliminary educational requirements are different, and the subjects to be studied and the hours of such study in order to secure such certificates are in no way comparable.

One of the grounds for suspending the right of the holder of a certificate to practice, or of revoking his certificate, is "the use by the holder of a 'drugless practitioner's certificate' of drugs or what are known as medicinal preparations, in or upon any human being, or the severing or penetrating by the holder of said 'drugless practitioner's certificate' of the tissues of any human being in the treatment of any disease, injury or deformity" etc., etc. (Section 14, Medical Practice Act as amended Statutes 1929, page 626.)

* * *

Clearly, prior to the Chiropractic Initiative Act, a chiropractor, not being a physician, could not sign a death certificate. However, the Initiative Chiropractic Act was adopted after the above acts of the legislature. As above noted, it states in Section 13 thereof that "chiropractic licentiates shall observe and be subject to all state and municipal regulations relating to all matters pertaining to the public health, and shall sign death certificates and make reports as required by law to the proper authorities, and such reports shall be accepted by the officers of the departments to which the same are made." This language would appear to be so clear as to not permit of judicial construction.

I am advised by the state registrar of vital statistics that it has been their policy to accept such death certificates so signed by chiropractors. This administrative construction of the law is entitled to certain weight. Also, there would be no power in the legislature to amend this initiative act, inasmuch as the act itself vested no such power in the legislature.

In Section 18 of the act it is particularly provided that all acts or parts of acts in conflict with the initiative act are repealed.

* * *

This office has rendered certain opinions on the general subject matter of the Chiropractic Act. In Opinion 4943, rendered to the California State Board of Health under date of February 15, 1924, we had before us Section 3084

of the Political Code providing, in part, that no burial shall take place without a certificate "signed by a physician." We advised that the word "physician" as used in this section meant a licensed physician, or, in other words, one duly authorized to engage in the practice of his profession. There was no reference in this opinion to the Initiative Chiropractic Act, nor to the proper construction of Sections 7 and 18 thereof.

In opinion 5255, rendered to the Honorable Walter A. Yarwood, secretary of the State Athletic Commission, under date of March 2, 1925, we advised, with reference to an initiative measure adopted at the general election of 1924. This act governed boxing and wrestling contests, and provided that every club holding a license to conduct the contests provided for in the act shall have in attendance a "licensed physician," and the act further provided for the issuance of a license by the commission to physicians. We advised that chiropractors receiving licenses under their own act were not to be considered as "licensed physicians." This opinion, however, had nothing to do with the right of a chiropractor to sign a death certificate.

Under date of January 9, 1929, we advised the Honorable Charles R. Detrick, insurance commissioner of the State of California, that a chiropractor will not be recognized as a physician who might visit disabled persons to comply with the provisions in accident and health policies requiring that in case of such disability the insured must be visited by a regularly licensed physician. This, however, has nothing to do with the question of your present inquiry.

Under date of July 7, 1931, in an unofficial communication addressed to Alex M. Lessem, M. D., City Health Officer of San Diego, we advised that a chiropractor was not authorized to sign death certificates. However, this communication was based on the provisions of the Vital Statistics Registration Law above discussed, and the Act of 1904 relating to the registration of deaths (Statutes 1905, page 115), and no consideration was given to the later Initiative Chiropractic Act.

After careful consideration of these various acts, and particularly of the language found in Sections 7 and 18 of the Chiropractic Act, we are of the view that the act clearly evidences an intention to authorize chiropractors to sign death certificates, and requires the accepting of such certificates by the proper authorities without any further requirement that such a certificate be signed either by a physician or by an official authorized to sign a death certificate.

Yours very truly,

Signed: U. S. WEBB, Attorney General,
By Frank English, Deputy.

Filing No. 7965.

* * *

Appeal From the Appellate Department Decision Regarding Court Jurisdiction in a Medico-Legal Case

Somewhat pertinent to the preceding opinion of Attorney-General Webb of California, is an article which appeared in the San Francisco *Recorder* of May 13, 1932, which deals with the chiropractor case which was commented on in the May CALIFORNIA AND WESTERN MEDICINE, page 371. What follows here should be read in conjunction with the reference just given. When the final opinion is rendered, a note will be made thereon in CALIFORNIA AND WESTERN MEDICINE. The article follows:

That the Appellate Department of the Superior Court is not the court of last resort on appeals from municipal courts in counties in which such courts have been established (Los Angeles and San Francisco), but that the Supreme Court has inherent power to set aside decisions of the Appellate Departments that are in conflict with rulings of the District Courts of Appeal, is declared in a petition for writ of error filed in the Supreme Court by City Prosecutor Charles P. Johnson of Los Angeles, attacking a ruling of the Appellate Department of the Superior Court of Los Angeles, holding that W. I. Schuster, a chiropractor, could not be prosecuted under the Medical Practice Act for any misuse of the prefix "Dr." but must be prosecuted therefor under the Chiropractic Act, if at all. (People etc. vs. Schuster, 2 Cal. Sup. 11.)

The Appellate Department based its conclusion that Schuster could not be prosecuted under the Medical Practice Act on the premise that Section 17 of the act, relating to chiropractors, had been repealed by the enactment of the Chiropractic Act.

The District Court of Appeal, according to the contentions of the city prosecutor, in ruling on this point in the case of People vs. Mills, 74 Cal. App. Rep. 353, held that there was no conflict between the two acts and that a person violating the Medical Practice Act could be prosecuted thereunder, no matter if he could be prosecuted under the Chiropractic Act. Deputy City Prosecutors John L. Bland and Joe Matherly presented the petition for writ of error.

Contrary to the Appellate Department's conclusion, they assert, it was also decided by the District Court of Appeal in People vs. Machado, 99 Cal. App. Rep. 702, that a license to practice chiropractic is not a defense to a charge under the Medical Act.

The legislature failed to provide for a review by the Supreme Court on conflicts between Appellate Department and District Court of Appeal decisions, the petitioners add, despite the fact that the department is an inferior court.

Unless the Supreme Court can take jurisdiction, the petition continues:

"the anomalous condition exists whereby the decisions of the inferior court are superior to the decisions of the said District Court of Appeal for the reason that the right exists to have the Supreme Court determine the correctness of the decision of the said District Court, while no means exists whereby the errors of the said Appellate Department of the Superior Court may be reviewed."

Uniformity of decisions is also impossible because of the situation, petitioners declare, because the Appellate Department's rulings are binding on municipal and justices' courts in Los Angeles and San Francisco counties, but the inferior courts of other counties are bound by District Court of Appeal decisions.

As authority for the issuance of a writ of error, the petitioners cited *Ex Parte Thistleton*, 52 Cal. 220; *Adams & Company vs. Town*, 3 Cal. 247; *S. P. & N. R. R. Company vs. Harlan*, 24 Cal. 334; *Widber vs. Superior Court*, 94 Cal. 430.

CALIFORNIA STATE HOSPITALS

During the last several years the organization and administration of the California State Hospitals has been a subject of considerable discussion among medical and lay citizens who were interested therein. The subject has also been given consideration at several meetings of the California Medical Association Council.

In item 16 of the Council meeting of May 4, 1932 (see page 455), reference is made to a special report which was submitted by Dr. George G. Hunter of Los Angeles. That report is here printed for the information of members of the California Medical Association. Report follows:

REPORT OF CALIFORNIA MEDICAL ASSOCIATION COMMITTEE ON MEDICAL EDUCATION AND HOSPITALS

To the Chairman and Council:

In conformity with the resolution passed by the Council of the California Medical Association referring to this committee the matter of investigation and suggestion as to the methods to accomplish, first, higher type of medical and executive service in our state hospitals, and second, protection to the superintendents and medical staffs of said hospitals against summary dismissal for political expediency, your committee offers the following report:

In view of the fact that the financial affairs and general policies, with respect to state hospitals, are largely in the hands of the Department of Finance, the prime concern of the Director of Institutions becomes medical administration and rehabilitation of the sick. It would therefore seem proper that the director be a medical man with a background of experience in mental diseases who will have the point of view necessary to bring the hospital efforts and aims into accord with present-day conceptions.

We therefore recommend that the Director of Institutions shall have as his qualifications for appointment a degree from a well-recognized nonsectarian medical school; that he be a graduate of at least five years' standing and hold an unrevoked license to practice medicine in California.

As the major interest of the director has to do with hospitals for mental disease, we believe that his usefulness will be enhanced by at least two years actual experience in a hospital for mental diseases. However, in view of the fact that corrective institutions, the narcotic hospitals, and the homes for feeble-minded are also under the jurisdiction of the department of institutions, we do not hold rigidly to the requirement that such experience shall be one of the essential prerequisites to his appointment.

We are of the opinion that the selection of the director would be perhaps freer from political power

were it in the hands of a board, lay and medical, whose appointment was not in the hands of each changing administration, but if the qualifications for eligibility be reasonably established the appointive power might safely rest in the Governor's hands as at present.

In order that medical service in the hospitals be raised to the highest possible standards comparable to the quality and efficiency with which medicine is administered to the private citizen outside of the state institutions, we recommend that a certain measure of specialization be encouraged in the appointment of hospital staffs, realizing that greater proficiency will be obtained than by emphasizing general qualifications covering the whole field of neuropsychiatry, medicine, surgery, and executive experience in the selection of the medical officers.

When one considers that each of our state hospitals represents in a manner a community of from two to six thousand persons afflicted not only with mental aberration, but often with all the varying disease conditions existing outside of the institution, it must become apparent that a medical officer, however competent he may be as a psychiatrist, is not likely to be equally as competent in every other department of medicine.

While it is recognized that neuropsychiatry will of necessity be one of the occupying duties of all members of the staff, it is expected that they shall be chosen for their special fitness and proficiency in one or other of the department activities and that their major interest shall be confined to the special field for which they are employed.

We believe it important for the good of the service that ample opportunity be given for advancement from one grade to the other at regular periods not only as a stimulus to constructive progress, but to permanency of the state hospital service. It is well recognized that by reason of the personal equation and individual interest some men may be better adapted for executive work, while others would prefer to follow the line leading toward scientific and clinical development. For this reason we feel that there should be a point of cleavage from which point there should be a development, on the one hand, of men suitable for the superintendency of institutions with all that implies and, on the other hand, to the position of medical director whose interests are wholly apart from executive administration.

We recommend that at least as often as every two years medical officers be examined as to their fitness and eligibility for promotion to the next higher grade.

We recommend that all medical officers in state hospitals be subject to civil service regulation as to their appointment and dismissal, and that no officer shall be dismissed without written charges being filed and the officer granted the usual right of hearing before the Civil Service Commission.

We recommend that the superintendents of institutions shall be appointed, as at present, by the Director of Institutions from civil service eligible lists, and that all other medical officers in the hospitals be appointed by the superintendents of their respective hospitals, subject to the approval of the Director of Institutions or the Governor, and that such officers be removable by the superintendent under civil service rules.

Provision shall be made for the temporary appointment of superintendents or members of the staff without civil service qualifications, but no temporary position thus filled shall extend beyond a period of three months without civil service examination.

We believe that one of the present weaknesses in the method of filling vacancies on hospital staffs is the lack of candidates from which to choose, and we therefore recommend that provision be made for suitable publicity as to staff vacancies and the conditions of appointment.

While it is highly desirable that all the California institutions be staffed as far as possible by residents of the State of California, and preferably by promotion within the hospital service itself, we do not

believe that this should be adhered to so closely as to lower the standard of appointments. The teaching of young men in the department of mental diseases has been carried on to a much greater extent in some of the eastern states than has been so on the Pacific Coast, and it is quite possible that some of these young psychiatrists might be available and become valuable assistants in the development of our California institutions.

We suggest as a desirable classification and in furtherance of the plan outlined, the following designations:

1. Director of Institutions.
2. (a) Superintendent of Hospitals.
(b) Medical Director.
3. Physician Psychiatrist.
4. Physician Internist.
5. Physician Surgeon.
6. Physician Pathologist.
7. Physician Specialist, *i. e.*, Eye, Ear, Nose, Throat, etc.
8. Senior Assistant Physician (Psychiatrist, Internist, Surgeon, Pathologist).
9. Junior Assistant Physician (Psychiatrist, Internist, Surgeon, Pathologist).
10. Dentist.

1. *Junior Assistant Physician*.—Graduate of well-recognized nonsectarian medical school with at least one year internship in Class A Hospital, and with license to practice medicine in California.

2. *Senior Assistant Physician*.—Shall possess all the qualifications required for the junior grade and shall have had at least two years' actual experience in a well-equipped hospital for mental diseases.

3. *Physician Specialist*.—Shall be a graduate of a well-recognized nonsectarian medical college, with unrevoked license to practice medicine in California. Shall have had one year internship in well-recognized hospital and two years' experience in the practice of his specialty.

4. *Physician Pathologist*.—Shall be graduate of well-recognized nonsectarian medical college. Shall have had at least four years' actual experience in the practice of his specialty.

5. *Physician Surgeon*.—Shall possess all the qualifications for assistant physician, senior grade, and shall have had at least two years additional practice in which the major interest was surgery.

6. *Physician Internist*.—Shall possess all the qualifications for assistant physician, senior grade, and shall have had, in addition, at least two years' practice in which the major interest was internal medicine.

7. *Physician Psychiatrist*.—Shall possess all the qualifications required for assistant physician, senior grade, and shall have had at least two additional years' actual practice as psychiatrist in a well-equipped hospital for mental diseases.

8. *Medical Director*.—Shall have all the qualifications of junior assistant physician and, in addition, shall have had at least five years' experience in actual practice, with not less than three years' experience in psychiatric work and two years as a major in internal medicine.

9. *Superintendent of Hospital*.—Shall have all the qualifications of junior assistant physician and, in addition, shall have had at least five years in actual practice, with not less than three years' experience in psychiatric work and two years additional experience either in psychiatry or other department of medicine.

Respectfully submitted,

George G. Hunter.

In view of the fact that since this matter was referred to the Committee on Medical Education and Hospitals, the President of our Association has appointed an Advisory Committee to the Director of Institutions. It seems proper that these recommendations shall have a further consideration by this advisory committee, and we recommend that it be referred to them for review and criticism. I so suggest.

THE ACID-BASE BALANCE OF THE BODY *

Its Relation to Health and Disease

The Acid-Base Balance of the Body.—Until recent years little consideration was given to the question of the acidity or alkalinity of body fluids. But of late the importance of maintaining or restoring the acid-base balance in the prevention and treatment of disease has become a major problem of physiological and clinical research.

Progress in this direction has been so rapid that a new field may be said to have opened to the clinician, based on a greater knowledge of the chemistry of the body.

In this connection certain terminology has been inherited by us from our misinformed ancestors and a number of new terms has arisen to meet the newer knowledge. Some confusion has naturally followed, to overcome which it is necessary to become familiar with new words and phrases as well as to understand more thoroughly the action of salts, bases and acids in health and disease.

Terminology.—The body consists essentially of proteins, fats, carbohydrates, inorganic salts, carbon dioxide and water—the latter constituting at least 75 per cent of the total body weight (1). The percentage of any class of constituents in the body is fairly constant at all times.

Electrolytes and Ions.—It has been found that many inorganic salts, bases and acids in solution are capable of transmitting an electric current. Such substances are termed "electrolytes."

This ability to carry an electrical current is satisfactorily explained by the Ionic Theory, which hypothesizes that in a solution of electrolytes a process of dissociation takes place, the molecule being broken down into ions, one class of ions carrying a positive charge and other ions carrying a negative charge of electricity. Thus in the case of sodium chloride, for example, there would be present in the solution:

- (a) sodium chloride molecules, carrying no charge;
- (b) sodium ions, carrying a positive charge;
- (c) chloride ions, carrying a negative charge.

Acids and Bases.—The behavior of acids, bases and salts in water solutions is due to the activities of their ions. In this connection, two types of ion are especially involved, namely *hydrogen ion* and *hydroxyl ion*. If the hydrogen ions are in excess of the hydroxyl ions, a solution is acid; if fewer, the solution is alkaline.

Dissociation.—Some acids and bases are spoken of as "strong," while others are described as "weak." The essential difference lies in the degree of dissociation into ions. Each substance has a "dissociation constant," which differs with the individual substance. This means that not all substances in solution divide into their respective ions to the same degree.

For example, in an acetic acid solution, there are more of the combined hydrogen acetate molecules than there are of the hydrogen and acetate ions. Hence, acetic acid is a weak acid.

On the other hand, in a hydrochloric acid solution, more of the substance is in the form of hydrogen and

chloride ions than in the form of hydrogen chloride particles. This, then, is a strong acid.

What is pH?—Even distilled water breaks up slightly into its respective ions. The number of hydrogen ions here equals 0.0000001 grams per liter. This is expressed in terms of the power of ten, thus: $[H^+] = 10^{-7}$. Likewise, the hydroxyl ions also equal $\frac{1}{10,000,000}$

gram-molecules per liter, or, $[OH^-] = 10^{-7}$. In other words, the two opposing ions balance, and the solution is neutral.

In view of the large figures involved, and the resultant confusion, Sörenson has introduced the term pH to simplify the nomenclature. By this method, the ten and the minus sign are omitted, leaving only the exponent. Thus, water has a pH of 7.

The total dissociation is always 10^{-14} . Therefore, as the hydrogen ions increase, the hydroxyl ions decrease proportionately. For this reason, we are able to omit consideration of the hydroxyl ions and mention only the hydrogen ion concentration, remembering that the total is always 14. The pH, therefore, is based only on the hydrogen ion concentration.

To summarize, a pH of greater than 7 is alkaline, or basic, while a pH of less than 7 is acid. The farther away from 7, the more acid or alkaline.

pH of the Body Fluids.—Normally, the pH of the blood is confined within the limits of 7.3 and 7.5. The maximum range of toleration, however, is between 7.0 and 7.8 (1).

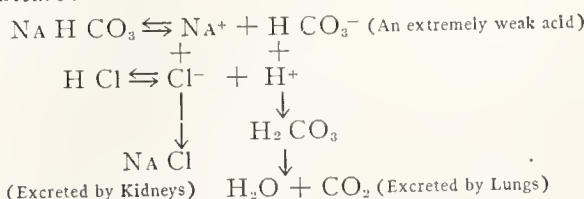
Acidosis and Alkalosis.—The body fluids, therefore, are always slightly alkaline. A pH of 7.5 or over is called an "alkalosis" or "hyperalkalinity," while a pH less than 7.3 is variously termed "acidosis," "hyper-acidity," or "hypoalkalinity." While the latter term more correctly defines the condition, "acidosis" is more popular in the literature and is most widely used by clinicians. For this reason we shall confine ourselves to the terms "alkalosis" and "acidosis," remembering that at no time does the blood give an acid reaction.

Buffer Salts.—The manner in which the body fluids are kept physiologically neutral is of great interest and importance. Briefly, this is accomplished in three ways: by the action of buffers, or tampons (those compounds that resist changes in pH when an acid or alkali is added); by respiration; and by excretion (4). We are particularly interested in the buffer salts of the body, which are comprised of both organic and inorganic substances (3).

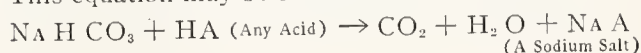
The principal organic buffers are the proteins, which, because of their amphoteric properties, combine equally well with acids or bases. The dual character of this type of buffer is due to the protein molecule, which contains both amino (NH_2) and carboxyl ($COOH$) groups. The amino group functions as an alkali and combines with acids, whereas the carboxyl group assumes acidic properties and combines with bases.

Graphically, the actions of the various types of inorganic buffer may be shown in the form of chemical equations, as follows:

1. Bicarbonates



This equation may be summarized as follows:



* Editor's Note.—The National Institute of Health, successor to the Hygienic Laboratory of the United States Public Health Service, which in turn operates as one of the bureaus or divisions of the Treasury Department of the United States, came into existence through an act of Congress, approved May 26, 1930. One of the publications brought out by the National Institute is a small booklet on "The Acid-Base Balance of the Body." Part One of that booklet is here reprinted because it is more or less pertinent to the California Medical Association prize paper by Dr. Harold L. Thompson, which also appears in this issue under the title, "Resection of the Pylorus." (See page 383.)

2,500 naturopaths and allied groups; and another \$10,000,-000 on 10,000 Christian Science and New Thought healers.

Exclusive Use Not General

A study of 7,800 representative families revealed that only fifty-two families considered healers in these cults as their family practitioners. Only 1.3 per cent of the families having medical care during the year used them exclusively, although 10 per cent resorted to healing cult practitioners at one time or another.

The report traces the development and history of the various cults and contains descriptions of the schools, the ideas and legal status of each group. It points out the similarity in the origin of many of the cults, in that originally their treatments were "cure-alls" based on all-inclusive theories of the cause of disease. Modification of such theories and the elevation of professional and educational standards gradually leads the cult to improve in training and diminish in number, and eventually to be assimilated into the general body of regular medical practitioners, according to the report.

Mr. Reed condemned the quality of teaching in the chiropractic and naturopathic schools. He found that entrance requirements are lax, equipment is poor, and none makes adequate hospital clinical facilities available to its students, while faculties are largely composed of persons ignorant of the established facts of medicine. At the completion of the regular course in one school, the report reveals, the student receives four diplomas and becomes a Doctor of Chiropractic, a Doctor of Naturopathy, a Doctor of Physiotherapy and a Master of Physical Culture.

Prevalence Explained

In explaining the prevalence of healing cults, Mr. Reed stated that "the idea of healing the sick, and being a 'doctor' with all that the title entails, is very attractive to many people, but this field of economic endeavor is closed to many by reason of the very high qualifications which the law requires of medical practitioners. Healing cults, therefore, provide a short cut for those who lack time, money or mental capacity to attain the qualifications demanded of the medical profession."

Mr. Reed gave some of the reasons why the public patronized healing cult practitioners:

1. Because of inattention by some medical practitioners to minor illnesses and to ailments of the mind.
2. Because doctors cannot cure all diseases and those who have failed to obtain help from regular doctors feel that little is lost by trying the "irregulars."
3. Because many people are still basically superstitious about diseases and health. They know little about the body and its functioning. They regard medicine neither as science nor art but as magic. To these the healing cult practitioner, with his simple explanation of disease, his confidence and his promise of cure, appears as a greater magician than the physician whose very knowledge makes him hesitate to promise a cure.

Recommendations Offered

4. Because many patients are unaware of the limitations of healing cult practitioners whom they consult, since they do not understand the meaning of D. O., D. C., N. D., and other titles of the various practitioners indiscriminately called "doctor." The reputation of healing cult practitioners is sustained by the fact that in acute diseases 80 to 90 per cent of all patients get well under any treatment or none. And when a patient gets well his recovery is attributed to the virtues of the treatment.

Mr. Reed pointed out the following ways in which the situation with regard to the healing cults can be improved:

The lay community's stock of knowledge regarding the human body and its functioning must be enlarged and more widely disseminated. As a result, for each succeeding generation, the limits within which credulity exists and unscientific practitioners can operate will be narrowed.

The passage by more states of basic science laws may be expected to cut down the inflow of poorly trained practitioners. These laws, already in existence in some states, require that all applicants for licenses to practice any branch of the healing art must first pass an examination in the basic sciences. The state should see that healing practitioners, whatsoever their beliefs, are properly trained and that they possess an adequate knowledge of the human body and its functioning and the diseases which afflict it.

TWENTY-FIVE YEARS AGO*

EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. V, No. 6, June 1907

From some editorial notes:

Attacks on State Journal.—The present crop of attacks upon the *California State Journal of Medicine* and its editor seems to be rather larger than usual. We wonder why? Also, we wonder why some of the medical (?) journals which publish these attacks go to the trouble of sending copies to all physicians in California. . . .

Frauds Exposed.—You all recall the remarkable series of exposures of the great American fraud, published in *Collier's Weekly* in 1905 and 1906. The task of preparing this matter was very great, and the results thus far accomplished are by no means small. But the work should not stop now. The purveyors of dope to the public live and hope that "it will all blow over." They know that memory is short and trust this will all be forgotten before long. . . .

From an article on "Report of the Board of Medical Examiners" by Dudley Tait, San Francisco:

The policy pursued by the Board of Examiners during the past two years has not deviated from that outlined in Riverside. The strictest adherence to the law has characterized every decision, every move, every act. "Better no law at all than one which is not enforced," has been our motto. You may scan our records, peruse our archives, and you will find none of the namby-pamby methods so prevalent in many official bodies. Two subjects in particular have occupied the attention of the board and called for special study: First, the preliminary educational requirements of matriculants to the medical schools of this state; second, the framing of a new medical law.

From an article on "Specific Therapy in Tuberculosis" by George H. Evans, M. D., San Francisco:

Nearly seventeen years have elapsed since Koch made the remarkable announcement of the discovery of a remedy prepared from a concentrated culture of the tubercle bacillus for the treatment of tuberculosis. . . .

From an article on "Medical Organizations and Public Health Work—With Special Application to the Milk Problem of California Cities" by George H. Kress, M. D., Los Angeles:

. . . The modifications in the dairy score card adopted for Los Angeles were agreed upon by the Los Angeles Pure Food Committee and the Los Angeles Milk Board of Trade, meeting together for that purpose in joint session. . . .

. . . Organization means, then, more disease prevented, more lives saved, a more scientific and a more fraternal and a more prosperous medical profession; in fact, the very things which are the ideals for which we should and do stand.

Is not, then, a better organization of the medical profession of California the paramount question and issue before us?

* This column strives to mirror the work and aims of colleagues who bore the brunt of state society work some twenty-five years ago. It is hoped that such presentation will be of interest to both old and recent members.

CALIFORNIA STATE DEPARTMENT OF PUBLIC HEALTH

By GILES S. PORTER, M. D.
Director

Suicide Rate Normal in Spite of Depression.—Contrary to expectations, the California suicide rate for 1931 remained almost the same as the 1930 suicide rate. In 1930 the rate was 26.3 per 100,000 population and in 1931 the rate was 26.8 per 100,000 population. There were 1,509 suicides in California in 1930 and 1598 in 1931. This would indicate that Californians are meeting unfavorable economic conditions with courage and that financial difficulties constitute a negligible factor in California suicides.

Sacramento Health Department Issues Biennial Report.—Dr. Herbert F. True, City Health Officer of Sacramento, has issued the first biennial report of the Sacramento City Health Department since the development of a full-time organization. Among some of the most important accomplishments during this period are the establishment of a complete city health center by the fusion of the municipal clinic and child welfare division and their removal to a better location in a well adapted modern building; the inauguration of school health service in the parochial and private schools; the inauguration of a physical examination service for milk handlers; the extension of inspection service to cover the installation of gas appliances; and the adoption of a new system of animal control and pound service by which individuals who keep dogs are required to secure permits in the same manner that other permits are obtained from city departments. A regulation has been adopted, also, by which, beginning in August, 1933, all dairies selling or delivering milk in the city of Sacramento must offer proof that the milk comes from cows which have passed the tuberculin test.

In addition to the established functions of the department, it is planned to make the health office itself more available as a reference and advisory service for city officials, business organizations, schools, and private citizens. Last year a library bureau was established in the central office of the department under which a large amount of classified material on health subjects has become available to all individuals who may desire to use it. A lecture service has also been started and staff members have been called upon to make many addresses before organizations, schools and institutions.

Communicable diseases, during the biennial period, have remained at relatively low levels. An outbreak of rabies in dogs caused the greatest concern, but the prompt institution of control measures brought this outbreak under control.

Tuberculosis Death Rate Makes Phenomenal Decrease.—The tuberculosis death rate in California dropped last year to 88.9 per cent per 100,000 population. There were 5,292 tuberculosis deaths in 1931 as compared with 5,629 such deaths in 1930. The rate per 100,000 population in 1930 was 98.2. The death rate for tuberculosis has fallen from 221.8 per 100,000 population to its present low mark.

There are many factors that are responsible for the remarkable reductions in the death rate for this disease. One of them is the provision of adequate facilities for the treatment of tuberculosis patients. The economic depression has had no effect upon the mortality rate for this disease. It is possible that lack of proper and sufficient food had built a background for the development of future cases of this disease during coming years, but the depression itself has produced no effect upon the death rate from this disease. It is possible, too, that favorable economic conditions that have existed in California during past

years are, in a measure, responsible for the low death rate from tuberculosis which prevails at the present time. The general prosperity that has been enjoyed, ideal labor conditions, the availability of wide varieties of foods, and the provision of innumerable recreational facilities have no doubt been deciding factors in lowering the tuberculosis death rate.

Due to its favorable climatic conditions, California attracts many sufferers from tuberculosis and as a result the death rate from this disease is higher in California than in most of the other states. The same is true of New Mexico, Arizona, Colorado, and a few other states to which tuberculosis patients migrate in large numbers. A total of 342 individuals who had lived in the state for less than one year died of tuberculosis in 1931. A total of 1,026 individuals who had lived in the state less than four years died of this disease last year. Out of a total of 5,292 deaths from this cause in 1931, 3,065 were in individuals who had lived in this state for ten years and over.

Most deaths from tuberculosis occur in individuals who are between 25 and 44 years of age. A considerable number of such deaths occurs also among those who are between the ages of 15 and 24. Twenty per cent of all tuberculosis deaths in California last year were in Mexicans. There were 1,195 deaths among individuals of this race, as compared with 3,467 among those of the white race, 178 negroes, 149 Japanese, 107 Chinese, 63 Indians, and 113 of all other races. The following table gives the number of deaths from tuberculosis and the rate per 100,000 population by years from 1906 to 1931:

Year	Deaths	Rate
1906	4,437	221.8
1907	4,607	225.5
1908	4,565	209.0
1909	4,673	203.9
1910	4,872	203.0
1911	5,114	203.9
1912	5,128	196.0
1913	5,402	198.3
1914	5,320	187.8
1915	5,551	186.9
1916	5,267	172.8
1917	5,457	172.9
1918	5,888	180.4
1919	5,678	168.3
1920	5,397	152.6
1921	5,427	144.5
1922	5,847	147.1
1923	5,724	136.5
1924	6,023	136.5
1925	5,896	127.3
1926	5,794	119.4
1927	5,960	117.6
1928	6,074	114.8
1929	5,855	106.3
1930	5,629	98.2
1931	5,292	88.9

TUBERCULOSIS MORTALITY

Length of residence in California		1930	1931
Under one month.....	41		28
One to three months.....	95		77
Four to six months.....	88		77
Seven to twelve months....	186		165
Thirteen months to four years	760		684
Five to nine years.....	1,010		897
Ten years and over.....	3,103		3,065
Unknown	346		304

BY RACE

White	3,648	3,467
Negro	201	178
Indian	99	63
Chinese	113	107
Japanese	143	149
Mexican	1,306	1,195
Others	119	133

BY AGE GROUPS

Under 1 year.....	88	73
1-4	227	213
5-14	237	196
15-24	950	863
25-34	1,175	1,088
35-44	1,024	1,012
45-54	870	852
55-64	572	552
65 —	486	443

Inspection of Aviaries as a Measure in the Control of Psittacosis.—Aviary inspection was established by the State Department of Public Health about the middle of January. From that time through the end of March, a total of 423 aviaries, containing 58,798 birds, were inspected. Nearly 53,000 of these birds were parakeets, 3,300 love birds, and 427 parrots.

Unreasonable Swimming in Lakes and Streams Prohibited.—A recent opinion by the attorney general of Section 5 of the Public Health Act, prohibiting swimming or washing clothes in streams, lakes and reservoirs used or intended to be used for drinking purposes, holds that the section must be interpreted in the light of the remainder of the act and of other statutes and therefore not as an absolute prohibition. But unreasonable use or abuse can be prohibited.

Immunization Clinics in Orange County.—During March, the Orange County Health Department, of which Dr. K. H. Sutherland is Health Officer, conducted sixteen immunization clinics. In these clinics, 383 individuals were vaccinated against smallpox and 567 received the complete immunization against diphtheria. During the first three months of the year, a total of fifty-six such clinics has been held in Orange County, in which 632 individuals were vaccinated against smallpox and 1,602 immunized against diphtheria. These figures represent nearly double the number of immunizations that were done during the first three months of the year 1931. The Orange County immunization program for 1932 is now well on its way.

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA

By CHARLES B. PINKHAM, M. D.
Secretary

News Items, June 1932

On May 2, 1932, Governor James Rolph, Jr., announced the appointment of Doctors Charles T. Sturgeon and W. R. Molony of Los Angeles and Fred DeLappe of Modesto as members of the State Board of Medical Examiners. Doctor DeLappe, appointed for a term expiring January 15, 1935, succeeds Dr. George Dock of Pasadena, term expired. Doctor Sturgeon, appointed for a term expiring January 15, 1935, succeeds Dr. H. M. Robertson of Santa Ana, and Dr. William R. Molony, appointed for a term expiring January 15, 1935, succeeds Dr. Harry V. Brown of Glendale.

"The status of the Superior Court, Appellate Department, as a tribunal of last resort, is questioned in a petition for writ of error on file today in the State Supreme Court, in which City Prosecutor Johnson asserts that the Supreme Court has the inherent power to set aside decisions of the department that are in conflict with decisions of the District Court of Appeal. The writ of error petition, a rare proceeding, attacks the ruling of the Appellate Department, rendered March 25 last, in which it held that W. I. Schuster, a chiropractor, could not be prosecuted under the Medical Practice Act for any misuse of the prefix 'Dr.' but must be prosecuted therefor under the Chiropractic Act, if at all. The department's decision, as reported in 69 C. A. D. (Supplement 35): . . . Unless the Supreme Court can take jurisdiction, the petition continues: 'An anomalous condition exists whereby the decisions of the inferior court are superior to the decisions of said District Court of Appeal, for the reason that the writ exists to have the Supreme Court determine the correctness of the decision of the said District Court, while no means exists whereby the errors of the said Appellate Department of the Superior Court may be reviewed'" (Los Angeles Journal, May 5, 1932).

"Investigation of a San Francisco diploma mill yesterday was being made in the bay city by Dr. Charles B. Pinkham, secretary of the State Board of Medical Examiners. With American Medical Association officials and postal authorities, Doctor Pinkham was investigating the activities of the 'Carnagey Medical College of San Francisco.' . . . The case arose out of the arrest in Connecticut of 'Dr.' Paul Roger Zahlmann, convicted on charges of violating the Medical Practice Act. Zahlmann testified he attended school in San Francisco, displaying a diploma from a college found to be nonexistent . . ." (Sacramento Union, April 27, 1932).

At a recent hearing before San Francisco Deputy District Attorney Leslie Gillen, based upon a complaint as to the *modus operandi* of certain hospital associations, it is reported that Mr. H. N. Duhem, said to control a large number of such hospital companies, all having offices at 733 Phelan Building, San Francisco, offered an explanation regarding "a complaint of the nonfulfillment of a contract" on the part of one of the hospital associations, assertedly to be under his management. An interesting feature developed in that, according to reports, a large number of these companies are said to exist in name only, there being no record of their incorporation, while other companies are said to have forfeited their corporation rights through failure to pay their state franchise tax.

Complaint was recently filed with the Board of Medical Examiners that individuals claiming to represent the "National Farm Health Bureau" and the "Metropolitan Health Bureau," alleged organizations not incorporated in the State of California, are selling in rural communities health policies, assertedly claiming connection with the Metropolitan Life Insurance Company, which organization is reported to be taking legal steps to stop this misrepresentation.

"A warrant for the arrest of Dr. Percy D. Purviance, head of the Golden Gate Chiropractic College, was issued yesterday by Deputy District Attorney Leslie C. Gillen. The warrant was issued on complaint of Mrs. Bessie Leone, who, according to the complaint, charged that Doctor Purviance offered to sell her the degree 'Doctor of Chiropractic' for the sum of \$600."

"Branded by the Grand Duchess Marie of Russia as an impostor, a man who said he was 'General Verieguiv' and 'The Grand Duke Michael Alexandrovich' of Russia, today was identified by police as R. H. W. Albrextondare, a fake healer and swindler. Policewoman Mary Ross said that Albrextondare, who was charged with renting a uniform for \$12.50 and having himself photographed as a 'Grand Duke,' had a long police record that included several swindles and jail sentences" (Press dispatch, Los Angeles, April 20, printed in the San Francisco Call, April 20, 1932). (Previous entries June, 1925; March, 1926; February and December, 1927; July, 1930.)

On May 7, 1932, Governor James Rolph, Jr., appointed Warren B. Davis, D. O., of Long Beach to the Board of Osteopathic Examiners for the term expiring December 21, 1934, vice A. V. Kalt, D. O., of Pasadena.

According to reports from the State Narcotic Division, Samuel Pink Burre, M. D., on May 6 pleaded guilty in the Police Court of Eureka to a charge of violation of the State Narcotic Law and was sentenced to pay a fine of \$30.

According to reports, Filiberto A. Bonaventura, M. D., recently pleaded guilty to a charge of violation of the Harrison Act in Columbus, Ohio, and was sentenced to imprisonment for a period of three years and to pay a fine of \$600, said sentence being suspended and defendant placed on probation, he being permitted to pay \$100 on account of the fine, the bal-

ance thereof to be paid by October 1, 1932, "or said defendant to stand committed to the county jail until paid."

"Dr. J. Coleman Browne of Stockton and Walter Skotlund, Santa Cruz insurance man, who pleaded guilty to securing a false affidavit for Daniel Curley, war veteran, yesterday reimbursed the Government for \$2,500, the sum paid to Curley. They were then released by order of United States District Judge A. T. St. Sure, who had announced that he would modify the sentences of one year in jail, provided restitution was made. The defendants were placed on probation for one year" (San Francisco *Examiner*, May 8, 1932).

"Edward Cavanaugh, in jail in Los Angeles, yesterday was identified by Mrs. Johanna Zeh of Antelope Valley as one of three men who she says swindled her out of \$1,000 through the medium of the age-old eye treatment racket, according to a telegram received by District Attorney Neil R. McAllister here yesterday from Harry Knoll, County Detective. . . . According to Mrs. Zeh, Cavanaugh acted as contact man for the trio of swindlers. He appeared at Mrs. Zeh's home in the guise of a spectacle salesman and fitted her eyes for glasses. He pretended to discover an 'ailment' in one of her eyes, which he told her could be cured only by radium treatment. He assertedly recommended a 'Doctor Miles,' another member of the gang. 'Doctor Miles' appeared on the scene at a later day and administered 'radium,' which turned out to be drops of clear water. By a sleight-of-hand movement the 'doctor' produced a small particle of substance which he told the patient had been removed by application of 'radium.' He accepted \$1,000 for his fee, the woman says. The same gang is said to have swindled Charles Dixon, Elk Grove rancher, out of \$3,500 through a similar racket. Dr. Charles B. Pinkham, secretary of the Board of Medical Examiners, has been waging a campaign against swindlers of this type for several years and the board has broadcast thousands of pamphlets warning gullible people against the fraud . . ." (Sacramento *Union*, April 21, 1932).

Reports relate that Jong Jou Choy, operating the Chun Kong Herb Company at El Centro, on April 22 pleaded guilty to a charge of violation of the Medical Practice Act and was sentenced to pay a fine of \$100 and serve sixty days in jail, sentence being suspended on condition of no further violation.

Reports relate that Burpee Cooper, M. D., recently pleaded guilty in Eureka to a charge of violation of the State Narcotic Law and was sentenced to pay a fine of \$30.

"Burt Cohn of Oakland was arrested last night in Harrisburg, Pennsylvania, on a fraud charge, growing out of his radio broadcasts as 'Maharajah the Great.' Mrs. Ada Sheeley, who filed the charges, said her unemployed husband, responding to Cohn's radio offers, paid him \$1 for a reading, and that she made an appointment for another reading at a cost of \$10, for which she was to receive 'reducing salts.' Meantime she said she notified the police and paid Cohn in marked bills" (Sacramento *Bee*, April 28, 1932). The radio has opened a new and lucrative avenue for buncombe.

Matthew O. Wilkinson, alleged eyesight swindler, recently returned by authorities from Texas, is said to be the individual who, in 1930, posing as a business man formerly of Bishop, Inyo County, interceded in behalf of eyesight swindlers Frank Faircloth and John F. Gebhart, mentioned in the 1930 annual report of the Board of Medical Examiners. Failing to appear in the Justice Court of Chula Vista on April 19, 1932, cash bail of \$200 deposited by his attorney was said to have been declared forfeited, whereupon a bench warrant was issued and his bond applied in payment of a \$200 fine. He is, assertedly, the brother of Elliott Wilkinson, eyesight swindler, now said to be serving a term in prison at Stillwater, Minnesota.

"Pleading guilty to a charge of practicing medicine without a license, Mrs. Ella Harry, masseuse, arrested at 229 East Weber Avenue, was given a 180-day suspended sentence yesterday by Police Judge Johnson. Suspended sentence was pronounced on condition she leave the state and not return for two years. She was given until eight o'clock last night to leave Stockton" (Stockton *Record*, May 5, 1932). Investigation disclosed she held a chiropractic diploma from the American University of Chiropractic dated August 3, 1923, she assertedly admitting that she attended this college for only one week; however, she was unable to tell where in Chicago it was located. She stated if she returned to California she would file an application for a chiropractic license.

"Richard J. Howard, sixty-one, self-styled 'Doctor,' was arrested here this morning by J. W. Davidson of the State Board of Medical Examiners and Deputy Sheriff John Ellis of Sonoma County on the complaint of District Attorney Albert F. Ross of Shasta County. Howard is charged with having jumped his bail in Shasta County in September, 1929, while awaiting trial for violation of the Medical Practice Act, following the death of Mrs. Paul Ruth in a confinement case in Shasta County. At the time of his arrest in 1929 Howard claimed he had been a physician in charge of a hospital in Kansas City, Missouri. . . . Howard is alleged to have told the authorities here that he received his medical training from his brothers, who were veterinary surgeons" (Press dispatch, Santa Rosa, April 21, printed in the Sacramento *Bee*, April 21, 1932).

Jefferson Hocker on April 19 pleaded guilty in the Justice Court of San Diego on a charge of violation of the Medical Practice Act and was sentenced to pay a fine of \$100, suspended on condition that he not again violate any provisions of the Medical Practice Act for a period of six months.

" . . . The National Sanatorium Corporation, Ltd., of which I. C. Jones, cancer treatment expert is president, asked for a permit to use the building at 630 The Esplanade as headquarters for the work. Roy Applegate was named as secretary of the corporation in the petition filed with the Council . . ." (Chico *Record*, May 5, 1932).

Reports relate that Mrs. C. P. Ohlson on April 25 pleaded guilty in San Luis Obispo to a charge of violation of the Medical Practice Act and was fined \$100, suspended for six months on condition that she discontinue business immediately.

"Dr. Edward H. Purcell, 523 Fifteenth Street, Oakland, one of several northern California physicians charged with participation in a veterans' compensation fraud conspiracy, was fined \$500 today by Federal Judge Frank Kerrigan and given six months' probation . . ." (San Francisco dispatch dated April 15, printed in the Oakland *Tribune*, April 25, 1932).

"Mrs. Virginia G. Rocine, wife of a visiting 'personality' lecturer, pleaded guilty to a violation of the state medical practice law today and was fined \$250 by Justice Eugene Daney, Jr. Judge Daney suspended the fine on condition that she violate no further laws for a year . . ." (San Diego *Tribune*, April 21, 1932).

Walter Rittenhouse was on April 26 adjudged guilty in the Justice Court of San Diego on a charge of violation of the Medical Practice Act and sentenced to pay a fine of \$100, suspended one year on condition of no further violation of the law.

"Charged with defrauding William H. Hilts, seventy, of \$4,700, while treating him for an illness, Henry K. Snyder, chiropractor, was held under \$2,500 bond for Superior Court trial on grand theft charges by Superior Judge Joseph Chambers" (Hollywood Citizen *News*, April 19, 1932).

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